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Textile World

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Exports: A Way Out

THE margin between prosperity and depression is usually much smaller than generally believed. Psychologically, to an industry in the doldrums the way out seems long and perhaps impossible. Statistically, it is often but a step—and entirely possible of accomplishment.

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In textiles, export trade offers a "way out", according to Floyd W. Jefferson. Excess of cotton goods production over shipments during the last three and one-half years was only 1.7%; consequently if export of cotton goods had been 10% of production instead of 6%, surplus would have been wiped out and margin afforded for more output.

Naturally, Mr. Jefferson does not mean to infer that the resulting rate of activity would have been a satisfactory one. However, he does show that the added outlet would have absorbed the "small overhanging supply which made operative, with such disastrous results, the inevitable law of supply and demand." Certainly, this slight change would have substituted market stability for demoralization, and would have enabled the industry to have emerged from the last few years of depression in a much stronger position, and better placed to reap the full benefits from improved business outlook and from the cooperative educational and promotional activities now under way.

Why have not textile manufacturers availed themselves of this opportunity?

Apathy seems to be the answer; apathy reflected in an indisposition to study the requirements and peculiarities of foreign markets, to cultivate them with the right type of sales personnel, and above all to regard them, not as dumping grounds, but as permanent outlets for a definite portion of domestic production.

This apathy must be replaced by intelligent foreign merchandising the ingredients of which Mr. Jefferson lists as intelligent survey, resourceful sales force, sustained quality, fair dealing, sympathetic understanding, a desire to serve, and a spirit of friendliness.

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Fortunately, unlike Mark Twain's weather, somebody *is* going to do something about textile exports.

The newly-formed Textile Export Association of the United States represents an intelligent and broad effort to place our foreign trade on the scientific basis where it belongs. It represents an attempt to utilize the facilities of the Webb-Pomerene Act which permits, in export trade, activities which are prohibited in domestic trade.

Failure of our industry to avail itself of the privileges accorded in this act has been inexcusable.

It is inconceivable that textile manufacturers will continue to ignore them, now that a definite program has been launched.

The Week in Textiles

Outlook . . .

CURTAILMENT IN cotton goods manufacture will continue and this element is a basis for optimism and demand continues light and any increase in stocks would be weakening. Considering weakness of cotton fabric sales may be rated as fair. . . . . Wool goods market displays better tone but sales have not generally improved. Several houses have, however, done fairly well. Smaller mills are said to be underselling. . . . . Knit goods are improving slowly. The fact that some hosiery mills are running to stock in hope of big fall business is a matter to be watched. Underwear moves well for nearby. . . . . Demand for silks has lessened and buyers take only special bargains. Raw silk is quiet with further display of weakness.

Sports Before Business . . .

SPORTS BEFORE—and after—business will be program of annual meeting of National Association of Cotton Manufacturers at Poland Springs, Me., Friday and Saturday, Oct. 10-11. With Monday a holiday (Columbus Day) in some States, opportunity for a real holiday is offered. . . . . Golf tournament, tennis and other sports Friday; business meeting Saturday morning, with election of officers and short addresses on interesting topics of the day; Saturday afternoon "alibi" golf and other sports; Saturday evening, banquet at which president-elect, outside speakers, and sports prizes will be produced.

Men's Wear Patterns . . .

REPORT ON July bookings of men's wear orders, broken down by patterns and colors, shows only minor changes from June. The principal divergance was a 5% gain in stripes to 38% of orders for woolens under $1.50 per yard and a similar decline in plain and small weaves to 47%. Plaids accounted for 14% and checks for 1%. In woolens over $1.50 per yard plain and small weaves were rated at 67%. Gray and brown (including tan) accounted for over 80% of the woolen business, while in fancy worsteds they were 60%, blues taking 31% in the worsteds. Over 50% of the fancy worsteds favored striped patterns. This report is issued monthly by the Wool Institute.

Dancing Cottons . . .

WHAT THE well-dressed ballet dancer will wear—and it's mostly cotton—was shown and discussed at the annual convention of the Dancing Masters of America which opened Aug. 17 at the Hotel Commodore. . . . . Fashion has already exerted a strong influence on the costumes approved by dancing schools, C. K. Everett, of The Cotton-Textile Institute, states, and one of its results has been the adoption by a number of dancing masters of a standardized costume of "shirt and shorts" quite similar to the exercise suits favored by young women at summer resorts. . . . . Dancing school teachers state that the tendency now is for their students to have a complete wardrobe for dancing. This includes velveteen rehearsal trunks with sleeveless broadcloth tuck-in blouse; gym bloomers, usually of sateen; a dressing gown of bright colored sateen; shirts and shorts of pique or broadcloth; ballet costumes of tarleton, organdie or voile; and gingham rompers.

The Business Outlook

"Business apparently hit a second bottom at the beginning of August, just a year after it went over the top in 1929. Since then little change, but indications that a slow up-pull has set in. Our index, with its final figures steady at 86.5% of normal for two weeks, rose a trifle to 86.9% this week. Last year it came down quite a peg to 111.5%, beginning its swift slide . . . . Industrial activity is still stagnant, but has reached resistance levels. General trade, discounting drouth doubts, has freshened since the first of the month. Commodity prices are decidedly firmer. Bears have made little headway in any market . . . . Whether the business recovery from now on is to be slow or fast, only seasonal or permanent, is now chiefly a question of revival of individual initiative and aggressiveness."

—The Business Week

Silk Exchange "Plays Possum" . . .

THE NATIONAL RAW SILK EXCHANGE sprang something novel in commodity exchange history last week when, twice within a week, it had two no-trade days. On Aug. 15, not a single sale was recorded, and this situation was duplicated on Aug. 18. . . . . Once before, on July 6, 1929, the Exchange had a no-trade session. The uncertainty of market prices plus doubt among manufacturers regarding the fall prospect for their finished products, were the reason for the lack of interest. The "dead" sessions are doubly significant in that since its opening nearly two years ago the Silk Exchange has grown steadily more important as a trading house for the silk industry.

Yarn-of-the-Week Club . . .

CAPITALIZING THE popularity of the "Book-of-the-Month" idea, the Indian Orchard Co., of Indian Orchard, Mass., has created a Yarn-of-the-Week Club. Each week, the company will send out a sample card carrying a novelty yarn suggestion. . . . . In its letter to the trade announcing this plan, the company points out that while each suggestion may or may not be applicable to the immediate problem of the manufacturer who receives it, it may create an idea—and the new

yarn or different application of an old yarn may be the first step in the creation of a fabric bizarre enough to satisfy the present-day cry for "something different." . . . . This is a novel merchandising step and indicative of the more progressive attitude in yarn distribution circles.

1931 World Cotton Congress . . .

PLANS FOR the International Cotton Congress, to be held in Paris next year, are well under way, it was announced by N. S. Pearse, general secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Associations, in London, this week. . . . . The date has been definitely set for June 23 to 25, 1931. The program has not yet been completed. Paris designers are reported planning special models in cottons to be shown at the Congress.

New Wrinkles . . .

PITY THE poor wrinkle! It can't even exist now without having its weight and chest measure taken. Scientists of the Bureau of Standards have devised an apparatus by which the wrinkleability of fabric can be determined. . . . . In operation the machine measures the amount of force required to bend a piece of fabric double, and the amount of energy recovered when the fabric is released. The latter figure is secured by the pressure of the released fabric on a delicately adjusted spring which measures the amount of rebound. A publication now in preparation by the Organic and Fibrous Materials Division will describe the machine, which is unencumbered with patents, and which was described in TEXTILE WORLD on March 29, 1930.

Women's Wear Gains . . .

TOTAL PRODUCTION of woolens and worsteds for July shows a 5.2% decrease from that for June, according to the Wool Institute. This decrease was influenced largely by the seasonal falling off in men's wear which was 12% lower than for June. Women's wear, however, shows a production increase in July of 6%. . . . . Men's wear billings were 15.5% below June, whereas women's wear billings show a 35% increase. The present relationship between current production and billings is favorable, and should be maintained, says the institute. . . . . Current billings of men's wear were 98.9% of the July production. This adds only 1.1% to a stock that represents even less than a current 30 days' supply. Women's wear billings were in excess of production by 6.5% for July. Total surplus stocks are reported 6% above the June total, but still indicate an eight times inventory turnover for the year.

Concerning Wages

IN PAST periods of business depression, wage reductions were regarded as a necessary concomitant of falling commodity prices and curtailed production. In the present situation, a new attitude is evident. This is reflected in the answers from leading employers to a telegraphic inquiry from the editor of *Printer's Ink* for opinions on the highly controversial subject of wages. The spirit of the replies can best be summarized in the following message from C. R. Palmer, president of Cluett, Peabody & Co.:

"In my opinion a general reduction of wages and salaries at this time is entirely unwarranted. Such action would be demoralizing and tend to bring about the very conditions we are all striving to avoid. Prosperity and high standard of living in this country are largely the result of good wages. If time proves that the fundamental conditions of this great country are changed, then wage reductions can be wisely considered, but certainly that time has not arrived and probably never will if industrial leaders remain courageous and unselfish."

In other words, as one editor put it, this new attitude is not the result of a benevolent streak in employers, but is in fact based upon "an intelligent perception of their own best interests."

The majority of textile executives, both North and South, even though facing possible continuance of apparently profitless operations, share this new attitude and will not hesitate to endorse Mr. Palmer's statement. Textile manufacturing for many years has carried the stigma of a low-wage industry. Any wide-spread reduction of wages at this time would defeat one of our important objectives—the transformation of the textile industry from a low-wage to a high-wage industry.

Fortunately, there is an alternative. The successful application of sound "labor-extension" or "stretch-out" systems, permitting the operation of more machines per skilled worker, has exploded the traditional theory that low *wages* and low labor *costs* always go hand in hand. Many times in recent years we have seen the average *wage* in textile plants increased while at the same time labor *costs* were substantially reduced.

There is great progress yet to be made in this direction. TEXTILE WORLD urges careful and exhaustive study in each individual case before the less intelligent and less courageous course of action, a horizontal reduction of wages, is followed.

EXPORTS Can Cure Textile Ills

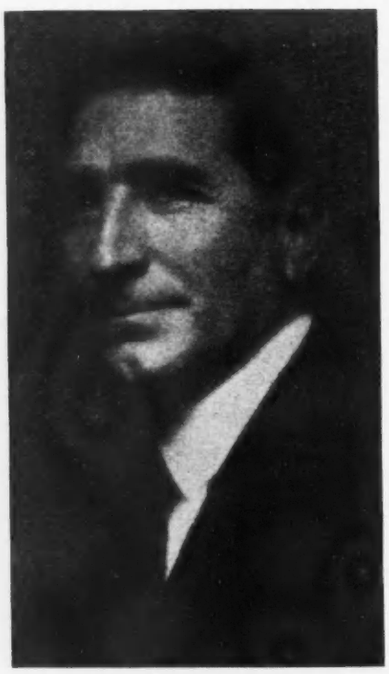
By Floyd W. Jefferson

Of Iselin-Jefferson Co., New York

IF EXPORT of cotton goods were 10% of production instead of 6%—or, in fact, if even a part of that ratio were accomplished—the ills of the textile industry would be cured.

This was the conclusion reached by Floyd W. Jefferson, of Iselin-Jefferson Co., New York, in his address "Foreign Trade Policy for the South," delivered Aug. 16 at the University of Virginia, Charlottesville, under the auspices of the Institute of Public Affairs. Nor does Mr. Jefferson consider this development impossible of accomplishment.

His address, in part, follows herewith:



Floyd W. Jefferson

"It is acknowledged that the United States has suffered for several years from a textile depression. The Cotton-Textile Institute ascribes the condition to overproduction; others maintain that the cause is underdistribution.

"The facts are that from January, 1927, through June, 1930, a period of three and one-half years, the mills of this country have shipped a yardage of cotton goods almost equal to the yardage which they have made.

"Statistics have been collected over this period by the Association of Cotton Textile Merchants. The statistics are accurate and comprehensive, and a survey of the figures taken from these reporting groups reveals that the excess of production over shipments for the three and one-half year period is only 1.7%, easily accounted for by changing conditions such as lower inventories in hands of jobbers, cutters, and retailers; growth of chain stores requiring the mills to carry merchandise; and express and fast freight reducing the yardage in rolling stock.

"Let us visualize what it would have meant to the textile industry and to the South if export of cotton goods had been 10% of production instead of 6%.

"It will not be an impossible problem to bring about this ratio and when even a part of it has been accomplished, it will cure the ills that have obsessed a basic industry and one in which the South is vitally interested.

"In 1918 there was passed in our Congress a measure known as the Webb-Pomerene Act which is probably destined to play a most important part in the future of our export progress.

"For some unaccountable reason, the Webb-Pomerene law failed to awaken in textile centers the enthusiasm which it deserved, and our merchants have been slow to organize under its elastic provisions and to take advantage of the opportunity which it affords.

"Very briefly, it is a provision of our law which permits industry to form associations for making agreements pertaining to foreign trade. The nature of these agreements may be of that type which are prohibited by the Sherman Law in respect to domestic trade relations. Our government, through this agency, has wisely provided a means whereby our merchants may compete with European associations and cartels.

"In July of this year, a group of important New York selling agencies and converters, working with officials of The Cotton-Textile Institute and the Association of Cotton Textile Merchants, formed the Textile Export Association of the United States. I believe that the establishment of this association is one of the most important forward steps that the industry has taken, and if through its guidance we can increase the export of cotton cloth by one or two per cent, its results will be momentous.

"There are certain styles of textiles that can be made better in the United States than anywhere else, and the outside world is ready to buy them and will do so when distributive agencies are better equipped to give service to foreign buyers.

"It is hoped that this newly formed Textile Export Association will point the way to progress in this important field.

"It is certain that internal price cutting and severe competition among American firms themselves has been a greater handicap to trade expansion in textiles than international competition.

"Through the Textile Export Association it will be possible for United States distributors legally to regulate conditions, terms and prices and to compare statistics enabling them to get that kind of information which has been available and helpful to Continental competitors.

Cotton in First Place

"An analysis of our nation's exports naturally brings us first to the subject of cotton, for it is not only the South's greatest article of commerce, but it takes front rank as the principal export product of the United States, followed in order by machinery, petroleum, automotive products and wheat and grain preparations.

"In 1929 raw cotton alone constituted 16% of the nation's export volume and if we add cottonseed oil, other cotton manufactures and cotton cloth the figures aggregate close to $1,000,000,000 out of the country's total of $4,250,000,000.

"Cotton represents the South's greatest contribution to export and over a period of many years an average of 60% of the total crop has been shipped to foreign consumers. The war years and the 1922 and 1924 period were exceptions. East Africa, China and Egypt have made headway in the growing of cotton but the supremacy of the South

has never been seriously threatened by these competitors.

"The world has knocked at our doors to get our cotton but this does not hold true of our textiles made from cotton. In this field, we meet the competition of the world and any advantage which we hold in the proximity of our mills to the raw material is easily offset by the lower labor costs utilized for its spinning and weaving.

"The amount of raw cotton which we exported amounting to $770,000,000 in 1929 was ten times greater than the value of our cotton textiles shipped abroad.

Opportunity in Cotton Textiles

"It is in this field that opportunity awaits us, and if we can add sufficiently to our foreign sales, we will succeed in removing surplus cloth production, which will result in stabilization of prices and re-establishment of the cotton textile industry upon a firm foundation.

"Quite frequently manufacturers make the point that it costs more to sell goods in foreign markets and that as there is little or no margin in domestic sales they cannot accept the lower net return which export sales would necessitate.

"The fallacy lies in the fact that the manufacturer needs and must have broader distribution. If ten, fifteen and twenty per cent of a mill's or factory's product can be sold abroad, it need not interfere with domestic sales and the additional distribution may mean all the difference between loss and profit. The manufacturer could well afford to pay the slightly higher cost of distribution to gain volume. It is hardly reasonable for him to expect that foreign markets can be reached as cheaply as domestic markets, and yet there seems to be a deep-rooted reluctance to pay the price for foreign selling service.

"As a matter of fact, it costs an eastern sales organization more to sell in California than in New York or Chicago. Distance from base frequently regulates cost of distribution. It is indisputable that it costs us more to sell merchandise on the Continent or in Latin America than in the United States, and a competent supervision of sales and an efficient organization for export distribution are expensive and hard to secure but they are essential and the far-sighted merchant is willing to pay the cost. When we cure the evil of under-distribution we are automatically relieving over-production.

The Right Kind of Men

"We must find the right kind of men with the right kind of knowledge and with the proper business training to send to foreign fields. These men must necessarily be specialists in the line which they are representing. The average man with a working knowledge of textiles cannot make an inteliigent or comprehensive report on the opportunities that may await North and South Carolina and Virginia for the export of wooden furniture. The trained furniture salesman may find in Latin American countries that Continental styles are firmly intrenched in high grade furniture and that local cabinet makers supply the requirements of the poorer classes. Such a report need not necessarily block the sale of American furniture. Quality might induce purchases in some sections and European styles might be duplicated here with advantage to buyer and manufacturer. Our emissaries in foreign commerce must be well educated specialists in their chosen field, must understand the principles of foreign trade, foreign credits and exchange, and must also be resourceful men.

"The research work of such men may have a most far-reaching effect upon an entire industry while an unintelligent survey by a less able representative may mean the absence of effort on the part of our manufacturers to capture fields in which their product might be sold.

"Intelligent export merchandising can be carried on at a cost somewhat higher but not out of proportion to the cost of domestic distribution, and in many instances the price obtained in foreign fields is quite equal to the domestic price.

"It is certain that a slightly greater percentage of cotton textiles distributed in foreign markets would have entirely absorbed that small overhanging supply which made operative with such disastrous results the inevitable law of supply and demand. The surplus through these difficult years has been very small, an amount equal to only one month's supply. This would not be unusual in normal times but apparently with unorganized sales control an actual shortage was required to stimulate the stagnant market. How quickly that shortage could have become real through added exports!

"Fundamentally there are two classes of products that may be exported: raw materials and raw materials fabricated with the addition of labor. Most of the natural commodities of this country can be put on shipboard as cheaply in the United States as elsewhere but the possibility of competing with other nations on articles of industrial manufacture depends very largely upon the ratio of labor content.

"If we are considering the establishment of factories to produce with foreign fields as a major objective, we must make a careful study of labor conditions in countries that are competing. Wages may be lower, but labor not so effective.

Effect of New Tariff

"The question of the effect of our new tariff upon export is one that has been the subject of much debate. The president of the Export Managers Club of New York, Roger L. Bracken, having returned from a four month's trip abroad, reports resentment on the part of many European nations. He states that this is particularly true in Switzerland and France and that in some quarters an actual boycott against American goods has been instituted. It is his feeling that the United States is faced with the prospect of steadily shrinking foreign trade unless some way can be found to lower the present rates.

"Henry B. Lauten, president of the Converters Association of New York, and a director of the Textile Export Association of the United States, voices a similar sentiment.

"Other economists do not share this viewpoint and are confident any dissatisfaction will be short lived.

"It is possible that there may be some effort at retaliation on the part of those countries whose manufactured products are partially shut out by the tariff but there is little reason for such feeling on the part of those nations from which we are importing tropical raw materials.

The disapproval of the tariff as voiced by its opponents in this country and given wide publicity may have had more to do with foreign sentiment than any wide-spread spontaneous feeling on the subject throughout the world.

"I believe that the policy of the South in export should be continuously to seek foreign outlet for a definite percentage of her manufacture, if necessary at a slightly higher distribution cost, scrupulously to avoid in editorials, in Congressional debate, in the written and spoken word, any utterances that could be construed as unprovoked unfriendliness to foreign nations, conscientiously to maintain standards in every delivery of merchandise, equal to contractural obligation whether it is cotton for Liverpool, office furniture for Colombia, hosiery for the Argentine or Texas-made osnaburg for the wheat crop of Chile.

"These things I hold to be essential to the establishment and maintenance of commerce with alien people; intelligent survey, resourceful sales force, sustained quality, whether of commodity or industrial product, fair dealing, sympathetic understanding, an actual desire to serve the needs of the customer nation, and a spirit of friendliness which will awaken in other countries a desire for closer commercial relations."

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Continued Attention to Balanced Production Urged at Meeting of Southern Cotton Mill Men

THREE important facts stand out in connection with the meeting of manufacturers of print cloths and narrow sheetings at Greenville, S. C., Friday of last week:

1. It was one of the finest meetings ever held in the South from the standpoint of attendance and interest shown. Seldom if ever before have there been as many as 100,000 looms represented at a group meeting in that section.

2. It was brought out that mill executives, through their actions this summer, had convinced buyers that they were determined to maintain a proper balance between production and demand.

3. It was further emphasized that the situation demands continued curtailment and probably will for some months to come.

Executives of cotton mills have probably never before given more serious attention to the necessity for balancing their production with the country's needs for cotton fabrics than they have during the last six months, according to George A. Sloan, president of The Cotton-Textile Institute, who attended the meeting.

Seventy-five mill executives, representing one hundred mills embracing 65,000 print cloth looms and 37,780 narrow sheeting looms, were present, including T. M. Marchant, president of the South Carolina Cotton Manufacturers Association and vice-president of The Cotton-Textile Institute; James C. Self, vice-president of the South Carolina Cotton Manufacturers Association; John A. Law, J. C. Evins, Victor Montgomery, Walter Montgomery, Rignal W. Baldwin, W. B. Cole, Allen Johnson, J. E. Sirrine, George Harris, C. M. Bailey, J. A. Chapman, S. M. Beattie, Marshall Orr, B. E. Geer, Robert Henry, George Wright, Arthur Lignon, B. B. Gossett, J. P. Gossett, Emslie Nicholson, W. S. Nicholson, Alex Long, and many other leading officials of the southern textile industry. Besides, there were several selling agents from New York City in attendance, including Gerrish Milliken, J. Bramhall, Willard Baldwin, Robert Stevens, Fred Keen and Benjamin Riegel.

The discussions brought out the facts that in spite of slackening in demand during the spring and summer the mills have consistently avoided overproduction; that stock of print cloth on hand was at no time this year as much as at the close of 1929, and that the inventory has maintained a steady downward trend and at the present time is at the lowest figure this year.

In addressing the meeting, Mr. Marchant, president of the South Carolina association, commended the mill owners on the intelligent and sound business judgment with which they have approached this matter and referred particularly to the considerate efforts this summer to minimize hardship upon labor. Mr. Sloan, president of the Institute, commented upon the effects of the unfavorable condition of business in general on the cotton textile situation. He stressed the necessity in this connection of intelligent and conservative action by each mill owner, of careful study of the statistics of the industry with respect to demand, present and prospective, and of conscientious efforts to keep product of each mill in reasonable balance with demand.

Two of the outstanding speakers, Mr. Marchant and Mr. Milliken, did not mince words in emphasizing the seriousness of the situation confronting cotton mills. In addition Mr. Bramhall spoke particularly of the attitude of the buyers toward the industry and said that mill executives this summer had made the beginnings of a profound impression upon the market, convincing buyers that they were determined to maintain balance.

The statements of the mill executives present evidenced a keen recognition of the desirability from every standpoint of continuing for an indefinite period the constructive efforts that were initiated by the mills individually during the summer to cope with the present emergency situation, thus minimizing the prevailing distress in all quarters. In fact, talk is heard in the market of plans for even more radical curtailment in the future.

In connection with this meeting, it is interesting to note that July statistics clearly indicated that a large percentage of the print cloth and narrow sheeting mills had brought down their production to about 50% of capacity. Comments expressed by executives at the Greenville meeting and elsewhere in the trade indicate further that production above this rate would exceed demand in print cloths and narrow sheetings and that this might be expected to hold true for some months to come. Many executives have expressed the belief that such seasonal improvement as developed this fall should be utilized for the moving of any existing stocks rather than for the development of a higher rate of production.

SLOAN TAKES HIS OWN MEDICINE

President George A. Sloan of The Cotton-Textile Institute, attending the conference of print cloth and narrow sheeting manufacturers in Greenville, wore cotton clothing in every detail of dress, except shoes. He wore a double-breasted cotton suit, a madras shirt, light-weight knitted cotton underwear, broadcloth tie, and cotton lisle hose.

New York Cotton Exchange Votes to Trade in Wool Top Futures

New York Cotton Exchange

THE members of the New York Cotton Exchange voted Monday to proceed with the plan to inaugurate trading in wool top futures. A standard contract for wool tops will be formulated, by-laws and trading rules will be prepared immediately, and it is expected that trading in wool top futures will begin Nov. 1.

The trading in wool top futures will be conducted through a corporation to be organized by the New York Cotton Exchange, under the title of Wool Associates of the New York Cotton Exchange. This corporation will have two classes of membership, namely, Class A and Class B. Class A memberships will be held by members of the New York Cotton Exchange. Class B memberships will be limited to 150 in addition to Class A memberships and will be held by persons other than members of the New York Cotton Exchange. Class B members will not be entitled to trade on the floor of the Exchange nor to clear trades in wool top futures, but members of both classes will be entitled to membership rates of commissions on trades in wool top futures.

At the present time there are only two small futures markets for wool tops, located at Antwerp and Roubaix-Tourcoing. It is anticipated that the wool top exchange now being organized will become one of the principal commodity exchanges, and will be utilized for hedging purposes by producers of raw wool, dealers in raw wool, and worsted and woolen manufacturers. The sale of a substantial number of seats in the new wool top exchange has already been assured.

The unit of trading will probably be 5,000 lb. of wool tops, the basic grade being 64's, with premiums and discounts for higher and lower qualities. It is possible that two contracts will be established, the second having 50's as the basic grade. The trading will be conducted on the floor of the Cotton Exchange in New York, but deliveries will be made in Boston and possibly Philadelphia.

Philip B. Weld, president of the New York Cotton Exchange, stated:

"The Cotton Exchange has decided to furnish facilities for trading in wool top futures after a careful study of the production, marketing, and consumption of wool throughout the world. The exchange has studied the problem through special committees which have held conferences in Boston and New York with representative leaders of the wool industry. Much interest has been shown, not only by domestic dealers and manufacturers and brokerage houses, but also by firms engaged in the wool trade in Europe and elsewhere abroad. Applications for membership have already been received from foreign firms.

"The value of the world wool crop is approximately the same as the value of the world cotton crop, but while there are numerous cotton exchanges affording facilities for hedging and trading, there are only two small wool top exchanges. An exchange for trading in wool tops will enable producers of raw wool, dealers in raw wool, and worsted and woolen manufacturers to hedge their holdings and commitments both in wool and tops, because of the price relationship between them.

"The new wool top futures exchange will be organized along broad lines, so as to provide an effective, free, and open market to the wool industry throughout the world. While the United States is one of the most important wool prducing countries in the world, it produces less than one-half of the wool consumed in this country, and imports all of the balance. The new wool tops market will provide facilities for hedging import wools produced in such important areas as South America, Australia, Africa, and Europe, as well as domestic wools.

"It is anticipated that interest in and use of the new wool top exchange by the wool trade of the world will develop much more rapidly than is usual with new exchanges, because of the world-wide facilities that members of the Cotton Exchange can afford to the wool industry. These facilities have been built up during 60 years of successful operation and service to the cotton trade. It is confidently expected that all of the important interests in the wool industry in this country who have not already signified their intention to join will do so as soon as the new market is organized.

"The formulation of the contract and the preparation of the by-laws and trading rules will be handled by a committee composed of men who have expert knowledge of raw wool, wool tops, and worsted and woolen manufactures, located in Boston and Philadelphia, with the assistance of technicians from the Cotton Exchange. Julius B. Baer, who prepared the by-laws and rules of the Rubber, Silk, Metal, and Hide Exchanges, has been retained by the Cotton Exchange to advise in the preparation of the by-laws and rules for the new wool top exchange."

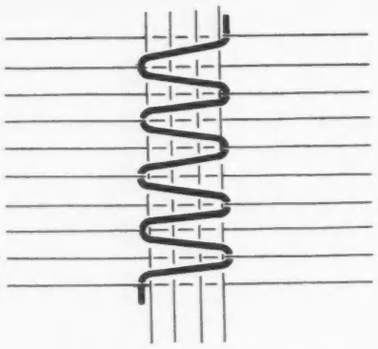

Fig. 1. Showing how solid color is obtained

How Russian-Cord Shirtings

RUSSIAN-CORD shirtings are made with a white or colored base having one or more Russian cords spaced at different intervals in the fabric. They are of a solid color on the face. A Russian cord is a leno, but is often made on a different principle from that which is used to produce regular leno effects.

The difference between a Russian cord and an ordinary cord in a fabric is that in the latter the cord interweaves with the filling and does not present a solid color, while the Russian cord is made by the crossing and recrossing of a colored thread, the thread being bound on each side of a white ground thread, thus forming a solid color in the cord.

Fig. 1 shows how the leno-cord thread crosses and recrosses from one side to the other over the top of four ground threads, being bound on each side by the filling.

A Bead Is Used

Russian cords are made by the use of a bead in connection with the regular jumper used with hemstitch lenos. They can be made on the regular leno principle by using either a steel-heddle doup or a twine doup, but the fabric is woven wrong side up in the loom and faulty places are not so readily detected.

To explain the method of making these cords, the following illustration is given:

Fig. 2 illustrates the first position of the harnesses. Three harness shafts are used and two easer rods. Harness shafts *A* and *C* carry the ground ends for the cord. Harness shaft *B* carries the leno-cord thread. The two ground ends are drawn through the harnesses, then through a bead. The leno-cord thread is drawn through the harness, then over the top of the bead. The ground thread drawn through harness marked *A* passes around the easer marked *D;* the ground thread drawn through harness marked *C* passes around easer marked *E*. These two harnesses, *A* and *C*, are connected to the dobby in the usual way.

Leno-cord harness *B* is connected directly to the jumper motion in the dobby. The jumper motion raises the harness half way in the shed on every pick. The two harness shafts marked *A* and *C* weave plain, so that when these shafts are level—that is, passing each other

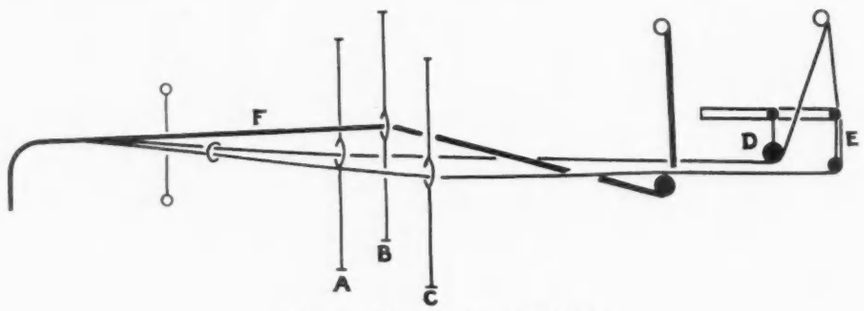

Fig. 2. First or normal position

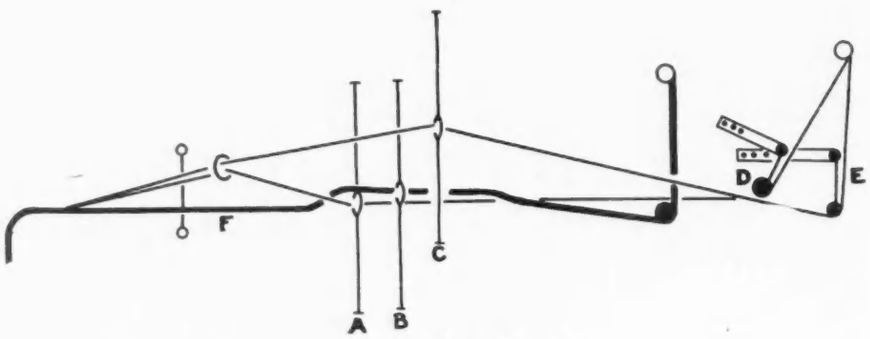

Fig. 3. First change

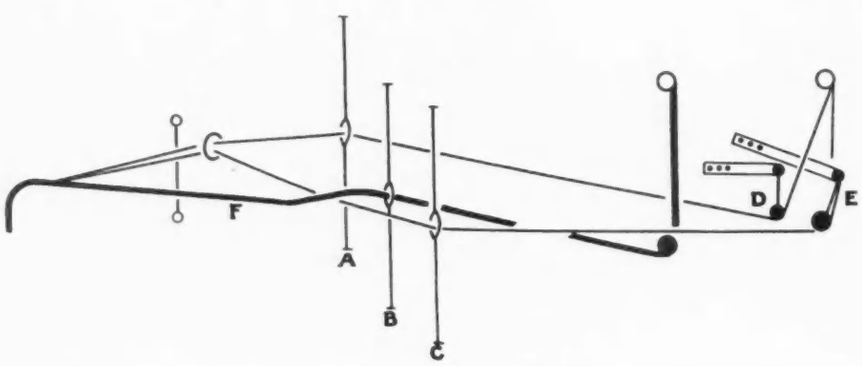

Fig. 4. Second change

Are Woven

By Thomas Nelson

—the jumper motion has raised the leno-cord harness half way in the shed, which brings this thread above the ground threads. This, therefore, is the position illustrated at Fig. 2, and is the normal position.

First and Second Changes

Fig. 3 illustrates the first change. Harness *C* has been raised, and this, as can be seen, has forced leno-cord end *F* to the left-hand side of the ground threads.

Fig. 4 illustrates the second change. Harness *A* has been raised, and this has forced leno-cord end *F* to the right-hand side of the ground threads. This is repeated throughout the length of the fabric.

NOTE: When the harnesses *A* and *C* are crossing each other, the jumper motion has raised harness *B*, so that no matter which harness shaft is raised, *A* or *C*, the leno-cord end will be pushed over to opposite side from the harness raised. The easer which controls the end through the harness shaft that is down must be raised.

Fig. 5 illustrates a fine Russian-cord shirting. Drawing-in draft and reed plan are illustrated at Fig. 6; and chain plan, at Fig. 7.

The construction of this fabric is about as follows:

Ground warp	40/1
Leno-cord ground ends	40/3
Leno cord	60/2
Filling	40/1
Picks per inch	72
Contraction in ground warp	6%
Contraction in leno-cord ground ends	1%
Contraction in leno cord, 4 in. of yarn to 1 in. of cloth.	
Reed, No. 30.	

Fig. 8 is a sample of fancy tape illustrating the use of two beads. Drawing-in draft and reed plan are illustrated at Fig. 9; and chain plan, at Fig. 10. When not making leno, the cords weave at the back of cloth. It is necessary to have separate beads for the stripes that weave differently, and the jumper motion must be attached to each leno-cord harness.

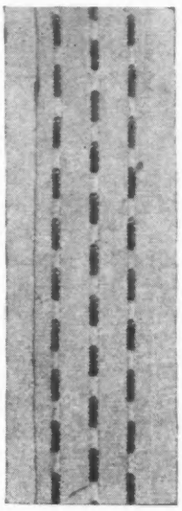

Fig. 8. Fancy tape

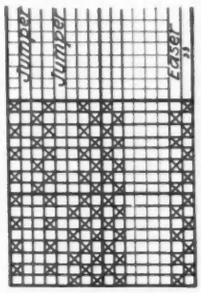

Fig. 10. Chain plan for Fig. 8

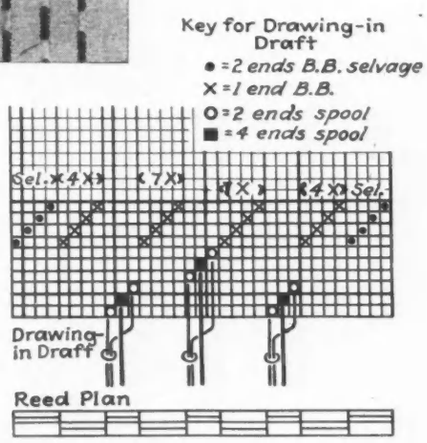

Fig. 9. Drawing-in draft and reed plan for Fig. 8

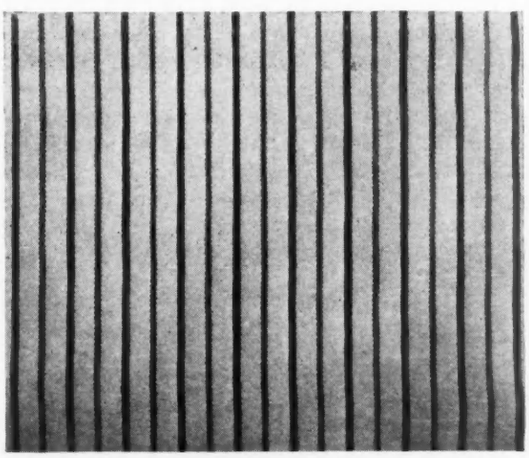

Fig. 5. Fine Russian-cord shirting

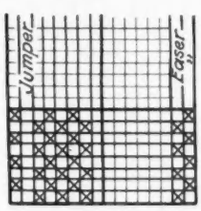

Fig. 7. Chain plan for Fig. 5

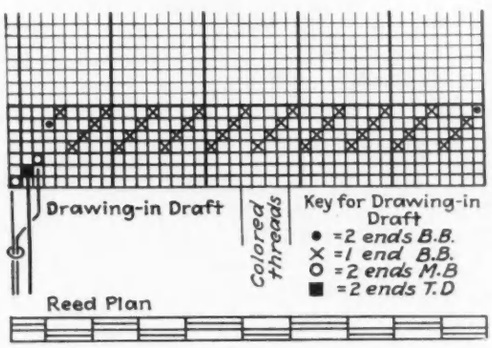

Fig. 6. Drawing-in and reed plan for Fig. 5

DESUPERHEATERS

Increase Power Plant Efficiency

By Charles L. Hubbard

IN ANY large industrial establishment the generation of power and heat are important factors in the overall efficiency of the plant. Every effort should be made, therefore, to balance their use in such a manner as to reduce waste to a minimum. One of the greatest losses of heat in the operation of a reciprocating engine is initial cylinder condensation; and the most effective remedy for this is to superheat the steam to such a degree that saturation at initial pressure will not be reached before the point of cutoff.

Advantages of Superheated Steam

While in any case there will be a certain amount of radiation loss from the cylinder, it will be considerably less with superheated steam. This is due to the dryness of the interior surfaces, which reduces the rate of heat transfer from steam to metal. When a turbine is employed as the prime mover, in order to prevent the presence of water in the lower stages and the resulting erosion of the blades superheated steam is practically a necessity. Superheat is also an important factor in the distribution of steam, as it keeps the piping clear of condensation, thus preventing water hammer and reducing loss of heat by radiation.

In addition to superheating steam in power plants, there is also a constant trend toward higher pressures. This tends to increase the general efficiency and is also found advantageous where high-pressure steam is required for certain kinds of process work. It makes it possible to operate turbines under a back pressure sufficiently high to give the necessary temperature to the exhaust, and at the same time to generate power at low cost.

Textile mills differ from the general run of industrial plants in requiring large quantities of low-pressure steam for process work in addition to that necessary for warming the buildings in cold weather. Therefore desuperheating and pressure reduction play an important part in tying together the power and heating in a plant of this kind; and they assist in securing a proper heat balance with the resulting higher efficiency.

When to Desuperheat

When the power pant of a mill needs to be enlarged or renewed it offers an opportunity to secure the benefits of higher steam pressures and temperatures. New boilers and prime movers are usually installed of a design to give this result. This leaves, for the time being at any rate, a considerable amount of auxiliary equipment—such as pumps, feedwater and other heaters, reciprocating engines, and other miscellaneous equipment—which, for various reasons, is not able to withstand the higher pressures and temperatures.

In some cases it is possible to retain the original boilers, and operate the old and new sections of the plant separately until such time as the entire outfit can be renewed. As a rule, however, this is not possible or practical, and tends to complicate matters and unbalance the system. The logical method in such a case is to generate all of the steam required in new high-pressure boilers, equipped with superheaters, and then desuperheat and reduce the pressure of such an amount as is required to supply the old equipment which is retained.

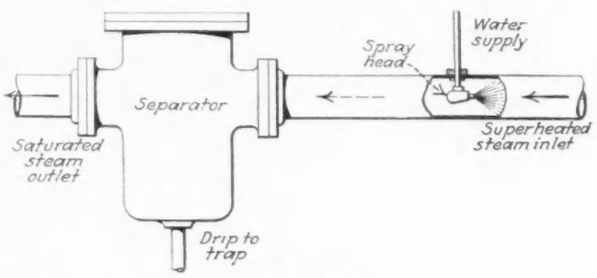

Fig. 1. Spray type of desuperheater

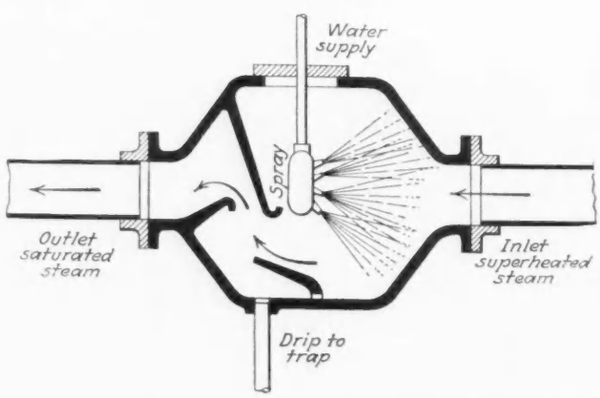

Fig. 2. Desuperheater in which spray head is placed in one end of separating chamber

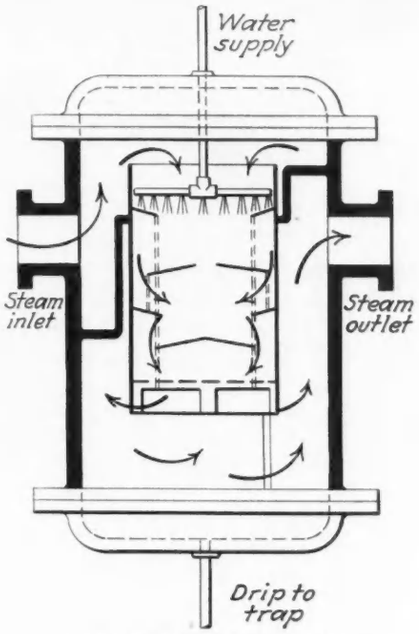

Fig. 3. Surface-absorption desuperheater

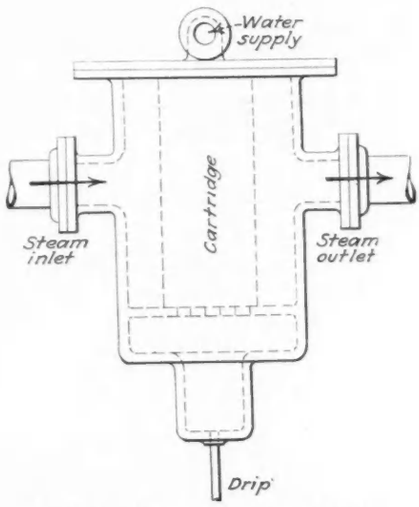

Fig. 4. Desuperheater employing metallic fabric cartridge

Again, superheated steam is not adapted to ordinary process work and should, in general, be changed to saturated steam at the required pressure before being used for this purpose. The same statement also applies to the warming of buildings, where live steam is often required to supplement the exhaust.

Sources of Process Steam

Steam used for heating and process work in a textile mill is obtained from different sources; it may include that bled from the intermediate stages of the main turbine, exhaust from non-condensing turbines and auxiliaries at varying pressures, leak-off steam from turbine glands, and live steam which has been passed through a pressure-reducing valve; all of this is more or less superheated. To make it suitable for general heating work, the steam should be reduced to the proper pressure, then desuperheated to the point of saturation. Water heating in a textile plant is an important factor. Feed water; hot water employed in washing, bleaching, dyeing, etc.; and, in certain cases, water for the softening process must be heated. Therefore the effect of superheated steam on various types of heaters should be considered when changing over a plant.

Operating Temperature Limit

In general, a temperature of 400° F. may be set as the safe operating limit for both closed feed-water heaters and the conventional type of cast-iron open heaters. While the open heater would seem to be admirably suited to deal with superheat, the control of steam and water in its interior is so erratic as to produce destructive changes of temperature. Heaters of this type, which are to be subjected to superheated steam, should be constructed with steel shells and malleable pans. Ordinarily, it is recommended that closed heaters for this class of work should be constructed entirely of steel. The tubes may also be of steel, although Admiralty metal is frequently used with good results. The advantages of steel are its strength and resistance to erosion and corrosion.

Another case where a desuperheater may often be employed to advantage is in the line between the boilers and prime mover. Most superheaters are placed within the boiler setting, and their tube surface so proportioned as to give the desired degree of superheat when the boiler is operated at normal load. When forced, the gases are hotter and more heat is transferred to the steam; but the quantity of steam generated is also increased, so that an approximate balance is maintained. However, there is a tendency for the temperature of the steam to rise above normal under these conditions, particularly if the superheater is placed in an early pass of the boiler. For the best results steam should be supplied to the prime mover at a uniform temperature. This condition can be maintained, even when the superheat fluctuates, by the use of an automatically controlled desuperheater in the steam line.

Types of Desuperheaters

Removal of superheat from steam is a simple process; it is accomplished by transferring the superheat to water, which, in turn, is evaporated into saturated steam at the given pressure. The water absorbs the heat, principally in the form of latent heat of evaporation. As the newly formed steam mixes with the desuperheated steam or is otherwise utilized, practically no heat loss occurs, there being simply a greater quantity of steam delivered at a lower temperature.

There are three general types of desuperheaters in use; namely, spray type, surface-absorption type, and non-contact type. In the first of these the water is sprayed into a steam pipe, and any excess not evaporated is removed by a special form of separator shown in Fig. 1. Best results are obtained when the spray is directed against the direction of steam flow; furthermore, the distance between the spray head and separator should be such as to require at least one half second for the mixture to pass between these two points at the given steam velocity. Another device of this type, in which the spray heads are placed in the separating chamber, is shown in Fig. 2.

Surface-absorption desuperheaters are made in various forms. In the type shown in Fig. 3 the water is delivered to a splash plate in the upper part of the separating chamber; it then falls over a series of rings which present sufficient wet surface to produce the necessary evaporation as the steam passes over them on its way to the outlet.

Another variation of this same type, Fig. 4, makes use of a woven-wire cartridge, so constructed as to retain

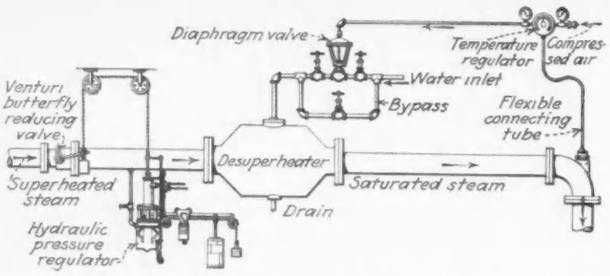

Fig. 5. Piping arrangement for pressure reduction and automatic desuperheating

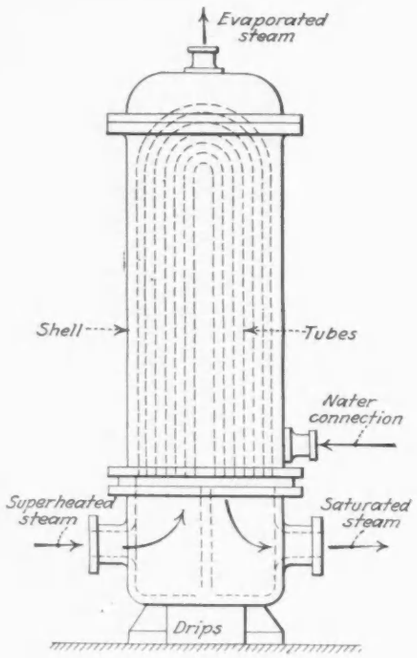

Fig. 6. Non-contact type of desuperheater

a considerable quantity of water in the form of films, and still offer a minimum of resistance to the flow of steam. Water is supplied through a series of transverse nozzles —not shown in the drawing—and trickles downward through the voids in the fabric. One advantage claimed for this arrangement is that the velocity of the steam is not communicated to the water, as it is when introduced as a spray. Accordingly, danger of it being carried through into the piping is diminished. Although the separating devices which form a part of the regular desuperheater equipment are supposed to remove effectively all moisture from the steam, it is recommended, as an added precaution, that a second separator of good design be placed between the desuperheater and the prime mover.

Methods of Control

Desuperheaters of the general types described may be controlled either by hand or automatically. When the former method is employed, the valve in the water-supply pipe is adjusted so that dry saturated steam at the given pressure is delivered when the plant is operating at full load. At lesser loads there will be a surplus of water, which may be trapped to the hotwell or receiving tank. This surplus will be small in amount and can be utilized as boiler feed.

Automatic-control equipment consists of a thermostat inserted in the steam line beyond the superheater, and a vapor or combined vapor and compressed-air regulator for actuating a diaphragm valve in the water-supply pipe. The general arrangement of this equipment is shown in Fig. 5.

Non-contact desuperheaters are similar in construction to closed feed-water heaters, but have special provision for handling high temperatures. Owing to the excessive expansion to be cared for, the tubes should be of the U-bend type, shown in Fig. 6. In this arrangement the steam and water do not come into direct contact; therefore there is no danger of the former being carried into the piping, and eventually to the prime mover.

In operation, the steam is passed through the tubes, with the water surrounding them in the shell. Regulation is secured by varying the height of the water line, thus increasing and diminishing the submerged tube surface. In most cases it is necessary to reduce both the pressure and temperature of the steam. Pressure reduction may take place either before or after desuperheating, as is most convenient; both arrangements being employed in practice.

If the first method is employed, the reducing valve must be especially designed for high-temperature work, both as regards material and construction. When saturated steam is passed through a pressure-reducing valve it is again superheated to a certain extent. In most cases this superheating is not sufficient to be objectionable, and frequently it is of advantage in preventing or reducing condensation in the pipe lines. In determining the location of the pressure-reducing valve in relation to the desuperheater several factors should be considered.

Pipe Connections

The method of making the pipe connections will of course depend upon the layout of the plant and the purpose for which desuperheated steam is to be used. In case of a new boiler plant and prime mover designed for high-pressure superheated steam, where saturated steam at the old pressure is still required for various auxiliaries, process work, heating, etc., a branch line is taken from the main steam header and the pressure and temperature reduced by an arrangement similar in principle to that shown in Fig. 5. The pressure is usually first reduced to that formerly carried on the old boilers, desuperheated, and if the exhaust from the auxiliaries is not sufficient for this purpose, then still further reduced for heating and process work.

As previously noted, superheated steam calls for a pressure-reducing valve of special construction, which will not be affected by the excessive temperatures to which it is exposed.

The desuperheater illustrated in the diagram is similar to that shown in Fig. 2, and is under automatic control by means of a thermostat placed in the saturated steam line, as indicated. By making suitable modifications, this general arrangement may be applied to almost any case similar to the one mentioned; it is adapted to any of the

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Table I.—Mean Specific Heat of Superheated Steam

Pressure per square inch	Degrees of superheat			
	50	100	200	300
80	0.536	0.525	0.512	0.505
100	0.550	0.538	0.523	0.514
125	0.566	0.553	0.535	0.524
150	0.581	0.566	0.546	0.533
200	0.606	0.588	0.564	0.549
250	0.629	0.609	0.581	0.564
300	0.650	0.627	0.597	0.578

various types of desuperheaters shown in Figs. 1 to 4 of this article.

Utilizing the Low-Pressure Boiler

Sometimes it is desirable to retain the old boiler (designated as the low-pressure boiler in the present case) and increase its capacity as may be required by a supplementary supply of low-pressure saturated steam. An arrangement for this purpose, making use of the non-contact type of desuperheater, is illustrated diagrammatically in Fig. 7. Water for desuperheating is drawn from the low-pressure boiler, and the saturated steam generated in the process flows over into the drum of the same boiler.

Steam from the desuperheater passes through a pressure-reducing valve and then into the low-pressure line as indicated. Regulation in this case is secured by varying the water level in the shell of the desuperheater, thus changing the amount of exposed tube surface and increasing or diminishing its heat-absorbing capacity. This can be accomplished either by regulating the valve in the water supply or, preferably, that in the line carrying steam from the top of the desuperheater to the low-pressure boiler. By throttling this valve, the pressure will be increased and the water level forced down.

On the other hand, partially closing the valve in the water supply will have much the same effect, allowing the water to evaporate faster than it can flow in at the bottom. Regulation of this kind may be done either automatically or by hand, as desired.

In order that no great amount of water may be taken suddenly from the low-pressure boiler, it is advisable to provide an auxiliary drum (Fig. 8) to supply the necessary cooling water to the desuperheater. Water should be supplied automatically by means of a float valve and kept hot by means of a steam coil. With this arrangement the low-pressure boiler may be cut out—or removed entirely if desired—and all of the steam taken from the high-pressure boiler.

Calculations

Computations involved in connection with the process of desuperheating are very simple, and relate chiefly to methods for approximating the quantity of cooling water required. The quantity of heat to be removed in desuperheating a given weight of steam is the same as that required to superheat it to the existing temperature.

The quantity of heat required to raise the temperature of 1 lb. of steam 1° F., called the "specific heat," varies with both the temperature and pressure, but for most practical work it is sufficiently accurate to use the average specific heat for the range through which the steam is heated or cooled for any given pressure. For example, with a pressure of 150 lb. per sq.in., the average specific heat for superheated steam, for the range from 0 to 100° F. is 0.566 B.t.u. Other combinations are given in Table I.

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Table II.—Temperature and Latent Heat of Saturated Steam

Pressure, in pounds per square inch	Temperature, in deg. F.	Latent heat of evaporation, in B.t.u.
80	312	900
100	328	888
125	344	875
150	359	863
200	382	843
250	401	826
300	418	811

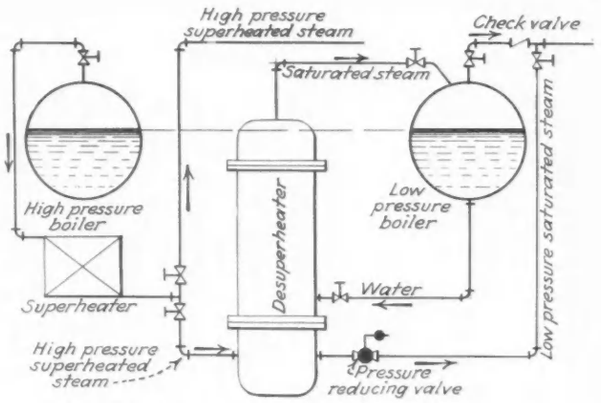


Fig. 7. Method of connecting high-pressure, high-temperature boiler with old plant

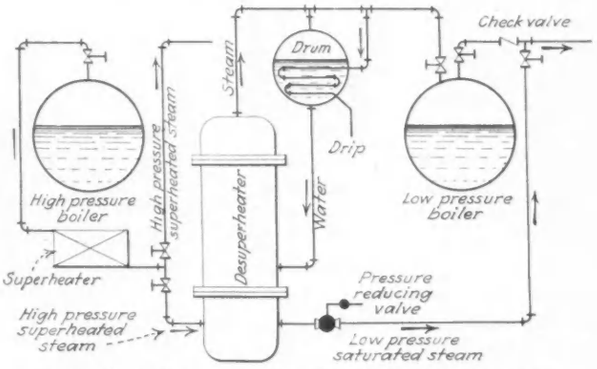


Fig. 8. Method of supplying cooling water from auxiliary drum

An example will illustrate the method of using this table. How much heat must be removed from 1,000 lb. of steam at 200 lb. pressure to remove 200 degrees of superheat and produce saturated steam at the same pressure?

Using Tables

Solution—The specific heat for the conditions stated is found from Table I to be 0.564 B.t.u.; hence the heat to be removed is $0.564 \times 200 \times 1{,}000 = 112{,}800$ B.t.u.

Heat removed in desuperheating steam is absorbed in raising the temperature of the cooling water to the boiling point at the given pressure, and evaporating it into saturated steam at that pressure. The temperature and latent heat of evaporation for the same pressures included in Table I are given in Table II, and will be found useful in approximating the quantity of cooling water required in desuperheating steam.

Assuming the initial temperature of the cooling water in the previous example to be 70° F., it will require $382 - 70 = 312$ B.t.u. per lb. to raise the temperature to the boiling point at 200 lb. pressure. To evaporate it into saturated steam at this pressure will require 843 B.t.u. more, making a total of $312 + 843 = 1{,}155$ B.t.u.

To remove the superheat from 1,000 lb. of steam, under the conditions stated, will therefore require $112{,}800 \div 1{,}155 = 91$ lb. of cooling water.

This is of course on a basis that just enough water is supplied to do the work, and that none is wasted, which is hardly ever possible in practice, although the waste is comparatively small in case of a well-designed outfit with automatic or close hand regulation.

The pressures in the first columns of Tables I and II are absolute, and can be changed to gage readings by subtracting 15.

Don't Be Afraid of the Microscope!

By E. R. Schwarz, S.B., A.T.I.

Article X, Continued

PHOTOMICROGRAPHIC APPARATUS

IN THE FIRST installment of this article, Professor Schwarz described the equipment needed to assure perfect alignment and proper illumination of photomicrographic equipment. He now continues with a discussion of the various types of microscopes and cameras used in photomicrography.

IN SELECTING the microscope to be used in photomicrography, it is encouraging to find that almost any instrument will serve. Certain types, it is true, are better than others, particularly those designed specially for the task. However, with some skill and judgment on the part of the operator, good results are obtainable with a wide range of instruments.

It should be realized that the photographic plate is more sensitive to differences in intensity of illumination than is the eye and, also, that it is differently reacted upon by color. Two factors are principally involved in these considerations: first, the optical system of the microscope; and second, the illumination. Either may be so controlled as to produce the most satisfactory results. Many of the references in the literature advocate the use of apochromatic objectives and compensating eyepieces (Art. III; June 22 and 29, 1929) for photographic work, since these are corrected for color effects. It is quite true that the use of these devices will make the task of the photomicrographer an easier one, but they are expensive and seldom provided except on special order. Equally good results are obtainable by means of the usual achromatic objectives if proper filters are employed to control the lighting. This requires a certain amount of technical knowledge on the part of the operator, but this he must have anyhow if he is to carry on the work intelligently.

In order to secure the greatest possible quantity of light for the photographic image, the body tube of the microscope designed for photomicrography is made larger in diameter than that of the usual instrument; and to avoid the bad effects of stray light, a light-tight connector is arranged to join the shutter housing of the camera with the draw tube of the microscope. Since the process of photomicrography is essentially one of projection—the sensitized plate serving instead of a screen—the use of projection oculars of low power will be found of value. Clear and sharply defined images may thus be produced with the highest power objectives; and what may be wanting in size in the final picture because of comparatively low magnification can be satisfactorily made up by enlarging the resulting photograph.

The photomicrographic camera is essentially a device consisting of a front board carrying the shutter on one-half of the light-tight connector, and rear board arranged to receive and retain firmly in position either a ground-glass focusing screen or a plate holder. These two elements are joined by means of a metal or wooden box in the case of the rigid (Figs. 1, 2, 3, and 7), or by a flexible bellows in the adjustable style (Figs. 5, 9, and 11). Whatever the means adopted, it must be entirely opaque and must fit perfectly, so that the only light which is admitted to the system must pass through the opened shutter. If the solid box is provided, it is desirable to arrange the dimensions so that the magnifications obtained at the plate are what the particular objective and ocular in use call for. That is, if an 8-mm. objective magnifying 20 diameters initially is employed in conjunction with a 10x ocular, the draw tube being at the standard length (normally 160 mm.), the magnification resulting in the photograph will be exactly 200 diameters.

While this feature is often a convenience, there are times when a wider range of magnification may be desirable, and a bellows connection allows this aim to be fulfilled. The back board carrying the plate holder and plate is then adjustable to and from the front board. It may be moved up almost into contact with the latter for the lowest powers, or to a distance of several feet for the highest. If, after focusing the image, the front board is moved back to a position near the plate holder, the shutter opening will act as a diaphragm and the field of view will be a clean-cut circle of size sufficient to be easily included within the confines of a $3\frac{1}{4}$x$4\frac{1}{4}$-in. plate. It is obvious that with this arrangement the light-tight connector is of no use. Either the room must be dark to avoid stray light effects during the exposure of the plate, or a cardboard or paper tube may be made to serve as a temporary connection between the halves of the connector. To obviate either or both of these precautions, a printing mask with circular hole of the desired diameter may be used when printing from the negative after exposure in the usual way. The author believes this latter to be much the better scheme, and its advantages will be pointed out in some detail in the proper place.

Making Exposures

While exposures of several seconds and longer may be easily made without the aid of a shutter, by simply inserting a piece of cardboard in the path of the light near the microscope condenser (or, if a light-tight connector

is not employed, near the front board of the camera), it will not be found either as convenient or as safe as the shutter. It is desirable that an interval be allowed between the time when the dark slide of the plate holder is removed and when the exposure is made. This allows any vibration caused by the manipulation of the apparatus to die out before the picture is taken. This can not be accomplished safely or efficiently save by a proper shutter mechanism. It is also true that many exposures will call for intervals of only a small fraction of a second. In this case accuracy is possible only with a time shutter, and the error of 1/100 to 1/50 of a second may spoil the picture.

The usual shutters have adjustments which provide for holding the shutter open by pressure, the diaphragm closing when the pressure is released. This makes for smooth action for moderately rapid exposures—2 to 10 seconds. For longer periods and for focusing, the mechanism may be set to keep the shutter open after tripping, until the release button is again pressed.

For very short exposures, the time release may be set for intervals ranging between 1/100 of a second to one full second. The settings are usually 1/100, 1/75, 1/50, 1/20, 1/10, 1/5, 1/2, and 1 second.

Types of Plate Holders

It remains to discuss the type of plate holder to be employed. In certain styles of camera this is limited, and the size and construction are governed by the requirement of the camera back board. For the larger models, a 5x7-in. plate is the usual maximum size. Adapters are obtainable, so that both 4x5-in. and $3\frac{1}{4}$x$4\frac{1}{4}$-in. plates may be accommodated. The latter is the size which will be most frequently used in connection with the microscope, but the 5x7 will be of value for some of the work with the micro-tessar lenses, or when exceptionally wide fields are to be covered.

The least expensive photomicrographic cameras are arranged for insertion into the draw tube, or over the draw tube, and, therefore, require no further support. Even with the lightest construction possible, this arrangement places a load on the fine-adjustment mechanism of the microscope, which—if maintained for long periods—may not be desirable (Figs. 1 and 2). A side-viewing attachment may be provided; and when in adjustment, a specimen focused by this means will also be in focus on the ground glass or plate. This adjustment is not wholly reliable, however, since in order to estimate the time of exposure to be used, it is frequently necessary—and always desirable—to judge the intensity of the illumination as well as its uniformity as it appears on the focusing screen. Therefore, the real value of the device must be somewhat discounted.

It has a real purpose, nevertheless, where moving or living specimens are to be photographed, since the observer may watch the specimen right up to the time of the exposure, and again view it immediately after. In some of the side-view accessory equipments, it is necessary to partially withdraw the viewing tube so that there will be no obstruction to the passage of light through the draw tube to the camera, such as would be offered by the prism of some other optical device. In certain designs, actuating of the shutter mechanism automatically throws the prism out of the path of the light, returning it after the exposure is complete—usually by the nearly simultaneous action of a second release similar to that on the camera. A side viewing device independent of the camera and outside the microscope is shown in Fig. 7.

(Continued on page 73)

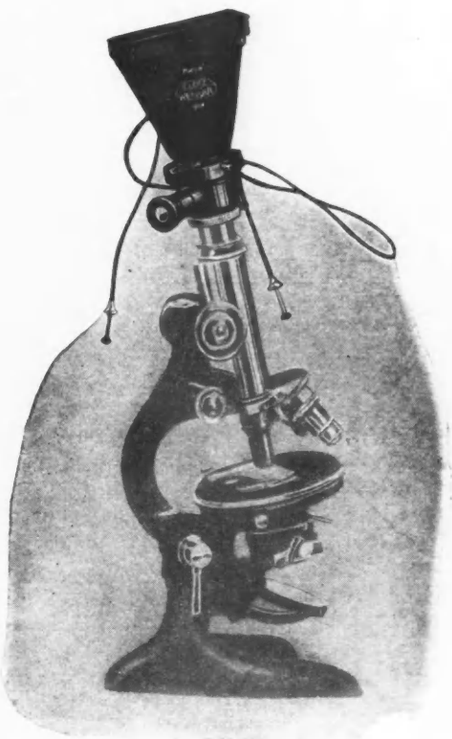


Fig. 1. Camera attachment for microscope (ocular type)

Fig. 2. Ocular type microscope

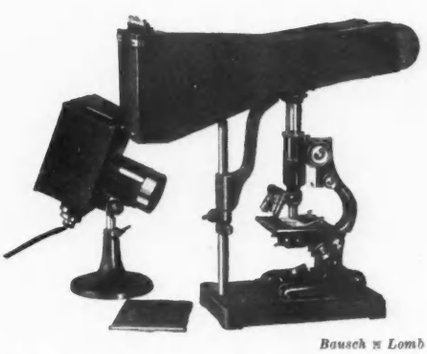


Fig. 8. Euscope arranged for photography

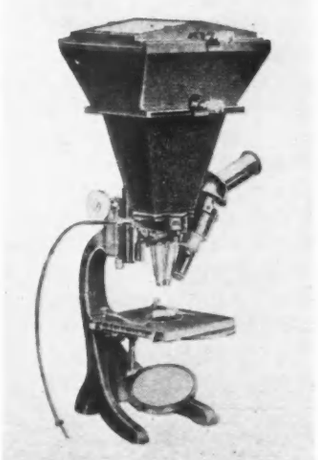


Fig. 7. Stereoscopic camera on binocular microscope

Practices and Standards of the

The conditioning house of the city of Bradford

Bradford Conditioning House

By G. D. H.

IN 1885 serious consideration was given to the establishment of a conditioning house in Bradford. The proposal at first met with considerable local opposition, but in 1891 the present building was laid out under the auspices of the Bradford Municipal Corporation. The laboratory was intended originally to be used specifically for testing wool, tops, and worsted yarn; but it now is equipped for testing of all textiles. The staff numbers 185. In order to insure strict privacy, tests and the lots to be tested are numbered—the confidential work being kept within a small and highly trustworthy circle. Girls engaged in weighing test samples are paid on an efficiency basis; and this procedure, in conjunction with careful checking and supervising systems, has produced an extremely small proportion of errors.

The conditioning house, which was designed by the present manager, E. H. Townend, is capable of making 1,000 tests per normal day; also 1,000 bales can be checkweighed in a day. Electricity is employed through out for the heating of test samples. All goods lying at the conditioning house are fully covered by insurance from time of receipt to removal. Goods sent for testing are stored free of charge for the first seven days; storage and handling charges are made after one week. Goods sent for weighing only and not removed the same day are charged storage from the date of delivery. Goods may be press-packed or repacked and marked as required. Tops are press-packed electrically, and wool in a hydraulic press; both on the ground floor and at a low cost.

The first recognition of official regains was the result of a conference held in Turin in 1875, when delegates from several textile centers supplied data to establish standard allowances for moisture in textiles.

Regains now used by the Bradford Conditioning House are as follows:

	Percentage	Approximate Quality per Pound
Wool and waste	16	2 oz., 3.25 drams
Tops oil combed	19	2 oz., 8.87 drams
Tops dry combed	18¼	2 oz., 7.5 drams
Noils ordinary	14	1 oz., 15.5 drams
Noils clean (scoured or carbonized)	16	2 oz., 3.25 drams
Worsted yarn	18¼	2 oz., 7.5 drams
Cloths—worsted or woolen	16	2 oz., 3.25 drams
Rayon	11	1 oz., 12.16 drams

These figures were adopted after an international conference held in Paris on May 16, 1927. During this conference, previous regains were withdrawn, as it was generally agreed that they were not sufficiently near to the actual regain when the fibers were exposed to normal atmospheric conditions. During a more recent conference, held in Bradford, these regains were discussed, and it was agreed that they are sufficiently near the actual regains for all practical purposes. Regain of the various rayons is having consideration. This is usually taken as 11% for all types, but has been found unsatisfactory in certain cases.

Standard regain signifies that an absolutely dry textile will take up the percentage of moisture agreed upon as standard when brought to normal condition. Thus, 119 parts of Topin oil in correct condition will lose in absolute drying 19 parts. This is spoken of as the direct loss. The remaining 100 parts equal the absolute dry weight, and the correct invoice weight is the total weight of a given lot of textiles when in standard condition.

Test Procedure

The method of procedure on receipt of a lot for testing is as follows: Two independent weights of each package are taken. The gross weights of wool in bales and sheets are taken to the nearest pound; bags of tops and cases of yarn to the nearest quarter pound; silk and rayon to the nearest ounce. After weighing, in the case of wool bales, three draws are made in a compartment near the scales by cutting the seams as shown in Fig. 1. A sample weighing approximately 1 lb. is taken and this is intermixed on a special tray from which relative portions are taken to comprise an exact weight of 1 lb. Sheets are cut as illustrated in Fig. 2.

In the case of tops, three balls are extracted indiscriminately from different rows in each bag. Then an exact 1-lb. test is taken from the three as illustrated in Fig. 3; that is, one-third of a pound from the center of *A*, one-third from the intermediate portion of *B*, and one-third from the outside of *C*. After exact weighing, the samples are placed in a paper bag with an entry number and are

passed to the moisture-testing department. The samples are then placed in testing ovens, which are electrically heated to give a controlled temperature of 235 to 240° F. without scorching or deteriorating the sample. Evaporation of moisture is facilitated by a current of air which has been brought to the same temperature as the ovens. This current passes through the cylindrical test containers at 45 to 50 cu.ft. per min. and is drawn away by suction. After each test has been subjected to the drying process for 15 to 20 minutes, the valves are closed, the test portion carefully turned over, and the weight ascertained by a sensitive overhead traveling balance. This process is repeated at intervals from seven to ten minutes until constant weights are secured. These weights are checked by three independent persons before they are allowed to pass to the certificate office.

Suppose the drawn top (256 drams) submitted to the drying process loses in drying 2 oz., 9 drams in moisture. It is thus equal to 215 drams of absolutely dry top.

$\frac{215}{256} \times 100 = 83.98$ or 16.02% direct loss.

At the standard regain for tops in oil (19%), the exact weight which this bone dry sample will regain is $\frac{83.98}{100} \times 19 = 15.96$. $83.98 + 15.96 = 99.94$. Therefore in 100 parts of the original top there is 100 minus 99.94 parts of excess moisture.

Tops are tested for fatty matters by what is termed the commercial-scour test. From each 1,200 lb. of top, lengths of sliver are drawn from each bag and two exact ½-lb. weights are taken. The dry weight of each is ascertained, and the two ½-lb. test portions are afterwards scoured separately in potash soap and then thoroughly washed off in clean water. The samples are again brought to dry weight, and the loss gives the amount of fatty matters removed by the immersion in pure potash soap in an aqueous solution at a temperature of 120° F. Each sample acts as a check against the other. A standard has been adopted in Bradford for this commercial scour. This is 3½% for tops combed in oil, and 0.634% for dry-combed tops.

Samples of raw wool are tested for condition and fatty matters in the same way. It is now possible to test the scoured yield of an entire bale of wool in a short time at a low cost. This is especially advantageous when the wool is not of a homogenous character and the 1-lb. test might be somewhat misleading. If the wool contains lime, it is treated in an acid bath in order to prevent the formation of an insoluble soap.

Moisture-testing plant, Bradford Conditioning House

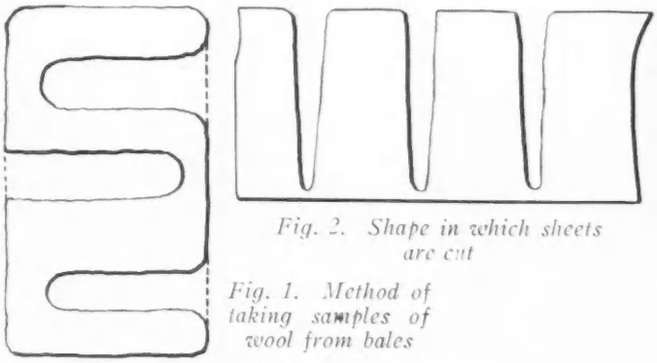


Fig. 2. Shape in which sheets are cut

Fig. 1. Method of taking samples of wool from bales

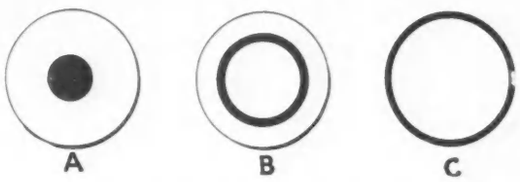


Fig. 3. Method of sampling tops

As the make-up of different yarns varies according to the count and length, the method of drawing test samples from bulk lots cannot be standardized to an exact 1-lb. test. Yarn tests vary therefore in weight from 1 to 1½ lb. From each bag weighing up to 400 lb. samples are extracted from as many different bundles as possible. From each lot of tubes a number of tubes are selected from various parts of the case, the number varying according to the type of tube. Yarn submitted on cheeses or cones is reeled. From lots weighing up to 400 lb., not less than six cheeses or cones are taken from various parts of the case. Three of these packages are reeled down to reach the insides and centers and afterwards immediately weighed; from these portions the second half of the yarn is taken. The second three are weighed immediately, and one-half the yarn required for testing is reeled from the outsides. This will be understood readily from the following example:

Yarn reeled from six cheeses	Lb.	Oz.	Dr.
Outsides (three packages)			
Original weight	4	4	7.0
Weight after reeling	3	14	10.3
Weight of reeled hank	0	5	12.7
Insides (three packages)			
Original weight	2	6	14.5
Weight after reeling	1	9	13.6
Weight of reeled hank	0	13	0.9
Total weight of sample	1	2	13.6
Weight after drying	1	0	4.0

Since the total weight of the sample was 1 lb., 2 oz., 13.6 dr. (or 301.6 drams) and the dry weight 1 lb., 4 dr. (or 260 drams), $\frac{260}{301.6} \times 100 = 86.21$. At the standard regain (18¼% for worsted yarn), $\frac{86.21}{100} \times 18.25 = 15.73$ = normal regain. $86.21 + 15.73 = 101.94$. Therefore 101.94 lb. is the correct weight of every 100 lb. of yarn submitted if the tests taken were characteristic. Thus the original yarn is 1.94% too dry. Absolute dry weight is ascertained in same way for wool tops, wastes, and yarns.

If yarn is sent on warps in balls or on beams, tests may be made to ascertain the following particulars: declared specications of the warp, calculated weight on

Storage warehouses, Bradford Conditioning House

declared specifications, actual net weight of warp, dry weight, weight of warp at standard regain, reeled length at full tension, and correct counts at correct condition.

A small number of ends are taken and reeled at what is considered to be standard warping-mill tension. These are then tested in the usual manner. Warps received on beams are returned on balls. Cases of yarn can be tested, if required, by drying in a hot chamber and allowing them to cool in a normally humid atmosphere until a constant weight is returned. In all yarn testing, unless specifically instructed to the contrary, the conditioning-house certificate gives the counts at correct condition and the counts as received.

Strength tests can be made, and are usually taken on a skein of 80 yd. for worsted yarn wound on a 54-in. reel. For cotton, the skein test is 120 yd.; and for camel hair and similar yarns, nine warps are taken on the standard reel.

Twist tests are made on the most up-to-date machines, the results stated being the average of not less than twenty tests. The commercial-scour test can be made, if required, on yarns. Yarns may be tested, microscopically for length and diameter of fiber, and for the spinning quality of the basic top.

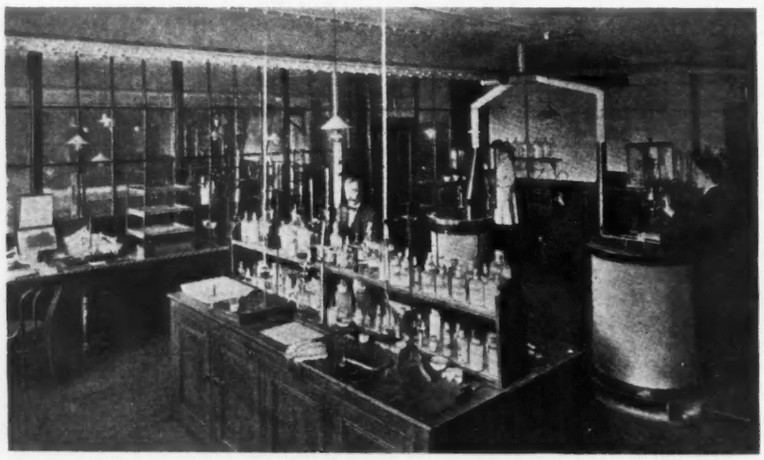
Testing Cloth

Samples of cloth may be submitted for complete analysis and tests as follows: weight per yard or meter, construction of cloth, number of ends and picks, counts of yarns composing the cloth, twist of yarns, and quality.

Faulty pieces may be sent for examination and comment. Tests can be made to find the percentage of cotton, silk, and other fibers in mixed materials. Also, in dyed materials tests can be made for indigo and percentage of shade due to indigo. Other tests include percentage of size; shrinkage; water-proofing capacity; efficiency of degumming for silk; presence of copper, acids, etc.

The latest developments at the conditioning house are the humidity room and the Fugitometer. The humidity room is a small internal chamber, which is kept at a constant temperature and barometric pressure. It is also kept at a constant humidity by means of a delicate balance and a piece of pure lamb's-wool flannel. If the flannel increases in weight, due to an increase in the moisture absorbed from an abnormal atmospheric humidity, a valve is opened and dry air is induced into the chamber until the normal weight is regained, when the valve is automatically closed. On the other hand, a decrease in weight causes the induction of atomized moisture. This room was designed by Mr. Townend in cooperation with the well-known textile scientist, Dr. Barker. The advantages of being able to perform scientific tests under standard conditions will be fully realized. The Fugitometer is designed to test the fastness of dyes to light. Samples are submitted to the glare of an electric arc light of a known and variable candlepower and the resistance to light is noted.

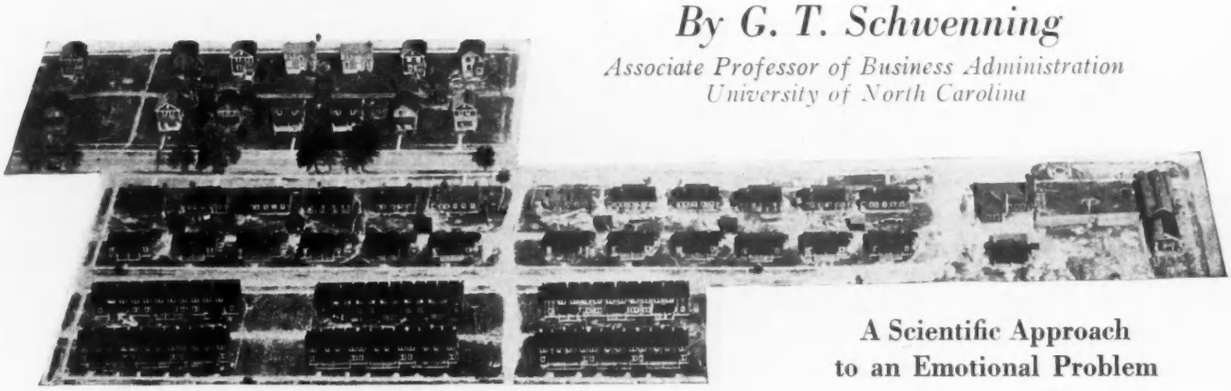
The accuracy with which tests are carried out; the thorough and scientific investigation of defects and complaints; the skill, impartiality, and experience of the staff have all contributed to the success and reputation of the clearing house.



Chemical Laboratory, Bradford Conditioning House

Is Paternalism Necessarily Vicious?

By G. T. Schwenning
Associate Professor of Business Administration
University of North Carolina



A Scientific Approach to an Emotional Problem

THE marked increase in welfare work in American industry since 1915 has brought forth considerable criticism, as has the growth of employee representation and the development of personnel administration. Paternalism is the major charge brought against present-day labor relations in industry. And this paternalism is condemned on the score that it degrades the workers, is undemocratic, and based on ulterior motives.

While the personnel policies of some industries probably warrant such summary condemnation, the criticism appears to overlook the fact that maintenance of living and working standards is so indispensable in industry today that the function cannot be neglected by management or left to the employees who in most cases do not appreciate the significance of such standards to either the industry or to themselves. One has only to refer to management's difficulty in teaching operatives the importance of treating minor injuries, preventing accidents, wearing glasses when needed, and the like, to understand a part of the need for such activities.

Much of the recent criticism of labor conditions in the southern textile industry has centered around the welfare work carried on in cotton mill villages. It is alleged that this welfare work is vicious because at its worst it is a means of labor exploitation and at its best a system of exercising an offensive paternalism. The entire program of service activities has been condemned as being feudalistic, anachronistic, indefensible, and the source of much labor unrest.

These charges brought against the paternalism of southern employers are serious indeed and deserve the most careful examination. And if it can be substantiated that the whole mill village and welfare system has been consciously devised by management for the purpose of exploiting labor and of avoiding the payment of taxes, then the public should demand the correction of so grave an evil. The current discussion of paternalistic industrial welfare in the country as a whole and in the South in particular appears to have neglected numerous historical, economic, and social factors which account largely for the existence and spread of the system.

The semi-rural nature of the textile industry in southern States necessitates the maintenance of the mill village and the continuance for some time of the accompanying paternalistic welfare activities. In view of the poverty of the people who become cotton mill workers and their established roving habits, it would seem difficult, if not impossible, to prove that the mill management deliberately prevents home-owning by these workers. On the contrary, there are on record numerous instances of efforts on the part of companies to encourage their employees to purchase and own their homes. These efforts have failed almost entirely. Such an attempt was made just two years ago by the Proximity Manufacturing Co., Greensboro, N. C., but the houses remained vacant, with a single exception.

Abstractly considered, home-owning is a socially desirable ideal. But is it desirable under all circumstances? It is highly questionable if owning a home would be desirable for these workers. A modest house costing only $3,000, if amortized in ten years without any down payment, would call for a monthly payment of $25, not to mention interest, taxes and upkeep. It stands to reason that the worker is better off if he rents a similar house from his employer for a monthly rental of $6 or less. This low rent constitutes an indirect wage.

Some critics of southern labor policies and practices fear that the present system will become permanent. History does not support this view. In other parts of the country, as in Europe, the inquisitorial features of paternalistic welfare activities were abandoned as the wage earners objected to them with their economic and social advancement and as industrial centers became a part of cities which provided houses and social opportunities. In northern industries where service work has been developed extensively since the World War, the objection to paternalism has been largely removed by the company soliciting and securing the active participation of the workers in conducting these activities.

In the South, the cotton manufacturing industry represents the early stages of industrialization. With the progress of manufactures and the growth of cities, labor relations will unquestionably change. Today the South is faced with the task of adjusting an 18th century agricultural people to a 20th century industrial environment. These people are so desperately poor and their standards of living so low that management must provide the necessities of life for them. When once the southern mill people become more or less permanently settled in cities and adjusted to the factory environment, much of the cause of paternalism will be removed. They will

(Continued on page 71)

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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Rewards and Penalties for Varying Grades of Work

Editor, Overseers' Round-Table:

IT IS MY belief that the only fair and accurate basis for setting piece rates is by taking a time study of the operation in question. Then a just piece rate can be set on the basis of an hourly rate, regulated by the skill required to perform the operation. However, it is a good plan to allow the superintendent to have something to say in the matter of what the hourly rate shall be.

Such a method obviously allows a careful analysis of conditions to be made, therefore a more accurate rate can be set.

T. M. SMALL.

Editors, Overseers' Round-Table:

I DO NOT think that a bonus, or any such plan, is the best method to get good work, or to insure against bad work. If a man in charge of a certain department cannot handle his production without the offer of some incentive, or punishment, I do not believe the man is capable of holding such a position.

To give bonuses or inflict financial punishment will arouse antagonism, one way or the other, for no matter how hard a man tries to be just in such matters he cannot satisfy everyone.

The overseer should educate his help thoroughly and explain to them that it is to their advantage, as well as to the mill's, that the best possible product be turned out, for only by being able to dispose of the goods at a profit can the mill keep running and give work to all hands. It seems to me that if more work were done along educational lines the overseer's task would be lighter and much good derived.

Treat the help fairly and you will find that they will respond to the treatment and give you the desired results, which are good work and good production.

HENRY F. HORN,
Franklin Weaving Co.

Editor, Overseers' Round-Table:

BILL'S AUTOMOBILE speed limit is a safety law and I cannot see where it has any bearing on the fining system of a weave room where there are so many things to be taken into consideration.

I have worked under four different systems; fining at the weave room perch, bonus, grading system, and the lay-off plan.

I received better results, both in quality and production, from the lay-off system as I found it kept the help more on guard. I did not use it as a club, but gave the weaver the benefit of the doubt before laying off him, or her for a few days. The overseer should be familiar with any leeway which the buyer, in cutting up, allows the manufacturer, and take this factor into consideration.

Poor management on the part of the overseer is the cause of 50% of the bad work. The overseer should listen to his help when they are willing to talk about the condition of the work and check up. In this way it is not only possible to stop the bad work before it gets into the cloth, but I have also found that by checking up I learn something of great value.

If the fining system could be stopped 99% of the overseers would be singing happy days are here again. My slogan is to cooperate.

C. E. S.

Punching the Ti

"I DON'T want you to think that I have suddenly been gripped by a spirit of reform," Superintendent Chase smiled at the assembled overseers, "and I don't want you to think that I am personally dissatisfied with any of you. I merely bring up the topic as a subject for discussion and," he grinned at Bill, "I hope we will have the usual fireworks. At any rate, I heard the other day of a mill where the president and everyone down the line punches the time clock. What do you men think of it?"

"I don't think much," Bill spoke, "at least not much that is good. If the overseers are forced to punch the clock the results would not be so good. In the first place a lot of the employees are going to look on it as a curtailment of the overseers' authority. The one thing which really allows the overseer to keep discipline in his department is that the help look on him as being a responsible man, trusted by the management and, therefore, above petty regulations. If you have the overseer placed on the same basis as the help they will cease to regard him as a man apart, and discipline will suffer. In the second place, and I believe this is even more important, once you establish some system, such as punching the time clock, which has the appearance of checking up on the overseer, you are going to lead him, perhaps unconsciously, to adopt a different mental attitude.

"Now let us," Bill continued, "examine the picture if the management requires the overseer to punch the time clock. The overseer soon gets the feeling that he isn't trusted, consequently he doesn't give the management his full trust.

"Bill has delivered quite an oration," Pete took the floor, "but I think he has gone off on the wrong tack. Having the overseers punch the time clock isn't a matter of checking up on them and spying into every move. Bill says that punching the clock

Time Clock

may have an unfortunate mental effect. Quite so, and that is the very reason why I believe that every one should go through with it. It is obvious that the time records are useful in calculating the operatives pay and other matters, but there is still some feeling against them. Once you draw a line and say that all below second hand, or overseer, have to punch the clock, you almost say that some you trust and others you don't. The effect on those who have to punch the clock isn't so good. Consequently, I believe that, if the operatives punch the clock, everyone should do it; not as a device to check up, but as a means of showing that the clock is just an impartial business instrument which no one has any feeling against."

◆

Do *you* think that overseers, but not supers, should punch the time clock; that the line should be drawn at second hands; or that all in the plant should do so?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

Arranging Employment in Slack Periods

Editor, Overseers' Round-Table:

PERTAINING to the question of dealing with the help in slack times, I solved it in this manner.

I divide the work which I have between all the help, and everybody is satisfied.

As for Bill's first argument, that in slack times he has his chance of weeding out his bad help, there is no reason for employing them in the first place, as there are plenty of good help to be gotten in every industrial city or town.

As for his second argument, that this arrangement would disorganize the mill, I find that this arrangement is practical from the cost standpoint and, at the same time I do not lose any of my help when I start the mill on a 100% basis.

J. MAUER,
Princeton Rayons, Inc.

Editor, Overseers' Round-Table:

THE HANDLING of labor during slack times is a real test of an overseer's efficiency, and one of his most important problems.

In a department properly organized it should be possible to work the operatives in rotation, so that each is getting at least part time during a slow season. Unless such a rotation is maintained it will necessitate a weeding out process such as Bill suggested. This will mean that the department head will have to train new help when business increases, a process which is not only expensive, but takes up valuable time needed for production. The thought of constant weeding out will also have a demoralizing effect on the workers.

Rotation of labor, being less expensive, more efficient, and fairer to all concerned, seems to be the best solution in handling labor during slack periods. W. R.

Editor, Overseers' Round-Table:

THE QUESTION of the distribution of work during slack times is a problem that can be viewed from many angles. Sometimes the family, or financial, affairs of an employee have a bearing with the overseer who may be of a charitable frame of mind, so it is usually the married man with a family who is in the "preferred" class.

I am of the opinion that the employee who has displayed an interest in the work over a period of time, and who has proved to be an earnest and loyal worker should have first preference.

JAMES C. MILNE.

New Machinery Brings New Problems

Editor, Overseers' Round-Table:

I DO NOT believe that any increased production which could be secured by bringing in new experienced help to operate a new type of machine would make up for the loss of heart on the part of the older employees which such a procedure would cause. Everyone's task becomes irksome at times, but the force which drives us on is the hope that we will be given a chance at something better when the door is open. Bring in new help for work which pays somewhat better wages and you destroy the ambition of your other workers.

By all means give the old employees a chance to learn to operate any new machines. ROBERT C. MORGAN.

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Summary of Discussion on Operatives for New Machinery

The problem presented was whether a mill should bring in new, experienced, help to operate a new type of machinery or train their old employees to do the work. The contributions were unanimous in agreeing that the old help should be given at least a chance to operate the new machinery and should be given assistance in learning the task. It was admitted that more efficient production would be secured at first by bringing in experienced help, but it was stated that this initial gain would be more than offset by the slump which the move would cause in the morale of the older workers.

NEWS about MEN

CASON J. CALLAWAY, of La Grange, son of the late Fuller E. Callaway, and now president of the Callaway Mills, has just completed the purchase of the Blue Springs property of about 1,000 acres and also about 1,500 acres of property adjacent to the Blue Springs land. Mr. Callaway's plan is to construct a small lake of 15 to 20 acres for fishing. He also plans to build a fence around all the property and stock with small game.

FLOYD W. JEFFERSON, of the Iselin-Jefferson Co., New York, delivered an address on foreign policy before the Institute of Public Affairs at the University of Virginia, at Charlottesville, Va., last Saturday.

DONALD COMER, of Birmingham, Ala., president and treasurer of the Avondale Mills, is a member of the Laymen's Club, which is promoting the construction of Brandon Memorial Hall on the campus of the Birmingham-Southern College, at Birmingham.

A. W. SHUTTLEWORTH, president of the Mohawk Carpet Mills, Amsterdam, N. Y., and family, are on an extended motor trip to Canada.

CARL R. HARRIS, former president of the Southern Textile Association, has resigned as general superintendent, Aragon-Baldwin Cotton Mills, Chester, S. C., and will become manufacturing engineer, The Erwin Cotton Mills Co., West Durham, N. C., effective Sept. 1. He was graduated from the textile department of North Carolina State College in 1917 and in recent years has won recognition as an outstanding mill superintendent of the South. MAJOR J. T. CRAWFORD, superintendent, the Whitmire (S. C.) plant of Aragon-Baldwin Cotton Mills, will succeed Mr. Harris, and in turn will be succeeded by R. L. WOOD, superintendent of the Aragon plant at Rock Hill, S. C. J. B. GARRETT, overseer of weaving at the Monaghan Mills, Greenville, S. C., will succeed Mr. Wood.

V. R. WEAVER, formerly head of the Elbouef Knitting Co., Utica, N. Y., has been selected a delegate from Oneida County to the coming Republican State Convention at Albany.

EDWARD J. BRADY, president of the Waucantuck Mills, Uxbridge, Mass., and daughters, are at Narragansett Pier, R. I., for their annual vacation.

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DENNIS D. O'CONNELL, proprietor of the Sterling Worsted Mills, Worcester, Mass., and Mrs. O'Connell, are passing their vacation at Manchester, Vt., and will return on Aug. 21.

A. M. CHAFFEE, president and treasurer of the Chaffee Bros. Co., Oxford, Mass., and his daughter, are passing a vacation at Marion, Mass.

Carl R. Harris who has been appointed manufacturing engineer, The Erwin Cotton Mills Co., West Durham, N. C., effective Sept. 1.

M. F. AUFSESSOR, head of the Star Woolen Co., Cohoes, N. Y., has been named a delegate from that district to the coming Republican State Convention.

W. S. LEE, of Charlotte, N. C., president of the Duke Power Co., will soon leave for a tour of more than a month which will carry him to the Pacific Coast. He will attend the annual meeting of the Pacific Coast unit of the American Institute of Electrical Engineers in Portland, Ore.

W. J. WEEPER, president of the Weeper Silk Mfg. Co., Fonda, N. Y., has been elected vice-president of the Board of Education in that city.

R. A. BRACE, president of the Fultonville (N. Y.) Hosiery Co., is passing an extended vacation at Brandt Lake.

ROGER M. GRIMWADE, treasurer and agent of the Charlton Woolen Co., Charlton City, Mass., and Mrs. Grimwade, are on a two weeks' vacation at Sugar Hill, White Mountains, N. H.

CLARE H. DRAPER, vice-president of the Draper Corp., Hopedale, Mass., has returned to the warehouse of the corporation at Spartanburg, S. C., after passing several weeks' at the home office and in other parts of Massachusetts.

W. GRADY GASTON, for the last decade, holding an important position with the Armstrong group of textile mills, was recently elected executive secretary of the Gastonia Chamber of Commerce. He will take up his new duties there within a few days.

H. L. HORTON was recently elected to the board of directors of the Lillian Knitting Mill, of Albermarle, N. C., to fill the vacancy caused by the death of A. C. HEATH.

LAMAR FLEMING, JR., of Anderson, Clayton & Co., of Houston, Texas, and ERNEST L. LITTLE, of Manville-Jenckes Co., of Pawtucket, R. I., were elected members of the New York Cotton Exchange, Aug. 14.

R. H. JOHNSTON has been elected treasurer of the Highland Park Mfg. Co., Spartanburg, S. C., succeeding J. LEAK SPENCER, who died recently. He is vice-president of the company also. TOM CHURCH, graduate of the North Carolina State College, has been elected secretary, a position which the late Mr. Spencer also held. C. W. JOHNSTON is president of the company.

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At a meeting of the board of directors of the Lola Mfg. Co., Stanley, N. C., C. H. POTTER was elected secretary and treasurer of the mill to succeed R. F. CRAIG. He began his new duties on Aug. 1.

JOHN J. MCSWAIN, representative in Congress from the 4th district of South Carolina, has ordered a suit of cotton cloth tailored for himself, which he will be wearing in a few days. The material comes from the Lad-Lassie Mill of the Gossett chain at Anderson, S. C., and the entire cost of suit, including tailoring, will not exceed five dollars.

C. FREDERICK BUTTERWORTH, treasurer of the Draper Corp., Hopedale, Mass., and family, will pass the next two weeks on a vacation at York Beach, Me.

LEONARD F. SMITH has been placed in charge of the advertising and sales promotion of Tubize Chatillon Corp., New York. Mr. Smith has been engaged in sales promotion and agency work for the last 10 years and in the last four has concentrated on textile promotion. He was at one time with Stehli Silks Corp.

CHARLES A. ROOT, treasurer of the Uxbridge (Mass.) Worsted Co., Inc., and family, who are passing the summer at Watch Hill, R. I., have as guests his son, Charles A. Root, Jr., and Mrs. Root, who have recently returned from their honeymoon trip to Europe.

J. H. GILES, formerly manager of the Klauder-Weldon Co., Amsterdam, N. Y.,

[illegible] recently head of the Giles Dyeing Machine Co., Germantown, Pa., is in a critical condition in the hospital at that place suffering from severe injuries received in an accident.

C. E. HARDIES, formerly treasurer of the Van Brocklin & Stover Co., Amsterdam, N. Y., and family, are passing the summer at Oxbow Lake.

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DAVID G. MCLAREN, plant superintendent of the Industrial Rayon Corp.'s South Covington plant, at Covington, Va., resigned, effective Aug. 15. Mr. McLaren came to Virginia Jan. 6, succeeding L. T. Meyer. C. H. Dasher, former plant engineer at the South Covington plant, has entered the office of plant superintendent, succeeding Mr. McLaren.

FRANK G. HOOD of R. H. Hood Co., Philadelphia, and WILLIAM B. SMITH, of Worcester, Mass., sailed Friday, Aug. 15 on the Aquitania on a combination pleasure and business trip, touring England and the Continent.

PAUL BETZ has been promoted to the position as assistant manager of the quality department at the Mohawk Carpet Mills, Amsterdam, N. Y.

CHARLES F. TURNER has been appointed assistant superintendent of the Northern Bag Mills, Nashville, Tenn. He formerly was superintendent of the Peerless Cotton Mills, Thomaston, Ga.

MRS. ANNA L. ROGERS, teacher, writer and adviser on design, color and fashion, has been appointed consulting stylist of the Mohawk Carpet Mills, Amsterdam, N. Y. For four years she taught designing in the Metropolitan Museum of Art. She has also conducted courses in design, color and craftwork at the Cornell Summer School.

EDWIN P. MICHAELS has been appointed to have charge of sales to the large stores in the metropolitan area by Brown Durrell Co., New York. Mr. Michaels has been associated with the company for the last 20 years and while having charge of sales in this section for four years or more, this change places the metropolitan distribution of the company's products under his supervision.

HENRY J. CUNNIFF has resigned his position as assistant superintendent of the Southbridge (Mass.) Finishing Co., and will retire to his former home in Dedham, Mass. He was tendered a farewell banquet on Aug. 15 and presented with a gold watch, the presentation being made by HERBERT W. WILKINSON, general manager, in behalf of his associates.

W. B. GORE, for several years superintendent of the Morgan Cotton Mills, of Marshville, N. C., has been appointed general manager to succeed GEORGE MEDLIN.

A. W. EDWARDS has recently become superintendent of the testing laboratory of the Morgan Cotton Mills, at Laurel Hill, N. C.

A. E. KENNA, professor of weaving and designing at Clemson College (S. C.) textile school, recently left for the University of Tennessee, where he is working for his master's degree.

W. C. BOBO has been chosen to succeed E. P. COFIELD as general superintendent of the Gossett Mills, of Anderson, S. C.

GEORGE B. BYRD, former superintendent of the Caraleigh Mills, of Raleigh, N. C., has gone to Rockingham, N. C., where he has accepted a position as superintendent of the Pee Dee Cotton Mills.

S. A. MOFFITT, formerly of Rock Hill (S. C.) Printing & Finishing Co., has been made general superintendent of the finishing plant of the Amoskeag Mfg. Co., of Manchester, N. H.

EARL N. BASSETT, manager of the Larkin Reed Co., Danielson, Conn., and Beatrice R. Lindner, also of that village, were married in Danielson, on Aug. 14.

JAMES G. BOWDEN, assistant superintendent of the Felters Co., Millbury, Mass., and Mildred Smith of the same town were married in Southport, Me., on Aug. 9.

H. M. MILES, formerly overseer of carding at the plant of the Borden Mfg. Co., at Kingsport, Tenn., is now superintendent of spinning at the Cherokee Spinning Co., Knoxville, Tenn.

HERBERT DILLABER, who recently retired as overseer for the Grosvenor-Dale Co., North Grosvenor-Dale, Conn., after 37 years' service, has moved his family to Webster, Mass., where they will make their home.

James W. Cox, Jr., who has become associated with the Augusta Factory, Enterprise Mfg. Co., and Sibley Mfg. Co., as vice-president in charge of operation, as reported in these columns last week. After Sept. 1 Mr. Cox will make his headquarters in Augusta, Ga., where these three companies are located.

HARRY J. WINTERS, an inspector for the Crompton & Knowles Loom Works, Worcester, Mass., is on a two months' trip to Scotland.

JOSEPH WILSON has been made head of the spinning department of the Chesnee (S. C.) mills.

J. A. SIMPSON, recently with the Tolar, Hart & Holt Mills, of Fayetteville, N. C., has been appointed superintendent of the Bladenboro (N. C.) Cotton Mills. Mr. Simpson was previously connected with Amazon Cotton Mills, Thomasville, N. C.

W. O. RUFFIN, formerly of Warrenville, S. C., is now head of the weaving department of the Buck Creek Cotton Mills, of Siluria, Ala.

H. A. DABNEY has resigned as overseer of the spinning department of the Rock Hill, S. C., plant of the Aragon-Baldwin Cotton Mills.

H. D. BROOME is now night overseer of the weaving department of the Marion (N. C.) Mfg. Co.

G. LOVELING, who has been landscape gardener for the Pacolet (S. C.) Mills for the last 15 years, recently resigned, and is now making his home at Bedford Hills, N. Y.

ALEX GOODMAN, card room overseer, Mill No. 2, American Cotton Mills, Inc., Bessemer City, N. C., has resigned.

H. M. MILES is now overseer of spinning at the Cherokee Spinning Co., Knoxville, Tenn.

J. E. WILSON is now overseer of weaving at the Aponaug Mfg. Co., Kosciusko, Miss. He was formerly at Wetumpka, Ala., where he was connected with the Alabama Mills Co.

ERNEST M. HUNTER is now auditor and assistant treasurer of the Durham (N. C.) Hosiery Mills.

JAMES A. TAYLOR, formerly overseer of finishing at the Bedford Johnson Co., Bedford, Va., has gone to Washougal, Wash., to make his home.

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L. L. MASON is now manager of the dyeing and finishing plant of the Crompton-Shenandoah Co., Waynesboro, Va.

J. L. DAVIS, formerly auditor and assistant secretary and treasurer of the Durham (N. C.) Hosiery Mills, has accepted a position with Liggett & Myers Tobacco Co., New York.

J. L. MITCHEN has resigned as overseer of spinning and twisting at the Mauney Mills, Inc., Kings Mountain, N. C.

L. C. VINCENT has resigned as card grinder at the Edna Mills, Reidsville, N. C.

W. R. WILSON, who has been assistant overseer of spinning at the Dunean Mills, Greenville, S. C., has been appointed boss spinner at the Aragon plant at Rock Hill, S. C., of the Aragon-Baldwin Cotton Mills, Inc.

J. F. SENTEL, formerly of Fayetteville, N. C., is now head of the carding department of the Borden Mfg. Co., Kingsport, Tenn.

NEWS about MILLS

Cotton

Pepperell Mfg. Co. mill at Opelika, Ala., was struck by lightning recently. A fire resulted which was extinguished but water did considerable damage to goods.

Berryton (Ga.) Mills are holding to a full time day schedule and part time night working force, as have been operative for some weeks past, and expect to continue on that basis indefinitely.

Columbus (Ga.) Mfg. Co. is installing five new Hermas shearing machines which are to be in tandem with some other finishing equipment. The mill is also installing 144 more atomizer humidifier heads for one of the weave rooms.

Bibb Mfg. Co. branch at Columbus, Ga., is now running 60 hours per week in all departments after almost six months of short time.

Covington (Ga.) Cotton Mills are now running both night and day shifts full time.

***Griffin (Ga.) Cotton Mills,** formerly the Griffin Mfg. Co., this week started up a few of its looms on broadcloths. About 5,000 spindles have been running for two weeks as well as other preparatory machinery and a few slashers to warp up the looms now running. The plant has been closed for the last two years, since being taken over by receivers. It was formerly equipped to manufacture automobile seat covers and crashes. About nine months ago, the plant was purchased by the Hightower interests of Thomaston and they have been revamping and reorganizing the entire mill for the manufacture of broadcloth and similar fabrics. Its napping and finishing machinery has been discarded because the finishing work will be done at the Thomaston (Ga.) Bleachery, another of the Hightower chain.

Manchester (Ga.) Cotton Mills, one of the Callaway chain, will be closed from Aug. 18 to Aug. 30 inclusive. Repairs of machinery and a vacation for the help is given as the reason for the shutdown. Ordinarily the mill closes for only one week each year for vacation.

Nashua Mfg. Co., Lowell, Mass., closed Aug. 11 for three weeks, during which readjustments and complete stock-taking will be made.

Erlanger Cotton Mills Co., Lexington, N. C., is installing 21 new spinning frames, which will increase production when placed in operation. A machine made in Switzerland for truing and planing shuttles has also been installed.

New York Mills (N. Y.) Textile Corp. suspended operations on Aug. 11 for the annual two weeks' vacation period.

Utica (N. Y.) Steam and Mohawk Valley Cotton Mills resumed full time operations Aug. 18 following a two weeks' shutdown for vacation period.

Balfour (N. C.) Mills have purchased oil spraying equipment for oiling their cotton, from Borne Scrymser Co., New York.

Erwin Cotton Mills, Durham, N. C., are running on a full-time production basis, with practically normal working force, and plan to hold to this schedule for an indefinite period.

Falls Mfg. Co. stockholders and stockholders of the **Southern Mfg. Co.** have voted to consolidate. These concerns are located at Granite Falls, N. C.

Wilbur Cotton Mills, Inc., Troy, N. C., have maintained for the last year and half regular full time day and night operating schedules. The Van Gelder Yarn Co., Inc., own this plant, and Milton Ensor is general manager and southern representative.

Arcadia (S. C.) Mills Co., manufacturer of broadcloths, colored madras and pajama checks, which has been running a week, and then remaining idle a week, has changed its operating schedule. The plant is now operating on a full day schedule and thirty hours on a night schedule.

Blue Ridge Mills, Landrum, S. C., will be sold at auction by order of Harry E. De Pass, referee in bankruptcy, on Sept. 15 by J. J. Cudd, trustee in bankruptcy. The Blue Ridge mills, consisting of one damask mill and equipment and one knitting mill and machinery, along with nine acres of land, a number of dwellings and other buildings, were placed in bankruptcy in December, 1929. John N. Cudd was president and J. B. Carpenter secretary and treasurer of the corporation. Its liabilities were placed at approximately $85,000, and its assets $25,000.

Palmetto Mills, Columbia, S. C., unit of the **Martel Mills,** have closed down. Their plant at Lexington, S. C., will also close some time this week. Both mills are to be idle for an indefinite time, it is understood.

Travora and **Neely Cotton Mills,** York, S. C., after standing idle for some time will resume operations in a few weeks, it is said, if present reorganization plans go through. E. B. Lowrey is slated to become president and general manager provided the stockholders concur in an action taken by the bondholders. J. T. Hedrick, of Lexington, N. C., has been president of the Travora-Neely plants for the last two years.

Riverside & Dan River Cotton Mills, Danville, Va., have reduced salaries of all officials and clerical help from 25 to 33⅓% by order of the board of directors, according to current report. Two of the five departments of this group of mills, which normally employs 4,500 workers, have suspended operation, and there is curtailment in effect in the other units.

*Indicates previous mention of project.

Wool

Coe Woolen Co., Worcester, Mass. Robert H. Coe, president and treasurer of the Jefferson (Mass.) Mfg. Co., has organized the Coe Woolen Co., with a capital stock of 5,000 shares of common stock without par value and will start manufacturing operations shortly in the former plant of the International Footwear Co., Inc., at 57 Jackson St., Worcester. The initial equipment will consist of 24 wide looms. The nature of the product is not disclosed, the charter being broad to cover worsteds, wool, mohair and cotton goods. Mr. Coe is president and treasurer of the company, Alexander B. Campbell, a Worcester lawyer and Mrs. Janet B. Coe, wife of the founder, the other incorporators and directors. Mr. Coe has not severed his relations with the Jefferson Mfg. Co., but that company is in no way identified with the new company.

Selden Worsted Mills, Methuen, Mass., are said to have authorized continued operation of the plant for the remainder of August, a usual vacation period for employes, owing to increased orders on hand, and it is not expected that there will be any shutdown for such purpose this year.

Bigelow-Sanford Carpet Co., Clinton, Mass., is recalling some of its employes from an enforced lay off and production is slightly increased. An improvement of business is anticipated.

M. T. Stevens & Sons Co., North Andover, Mass., is said to have plans for continuous operation of its local mill for an indefinite period, and will not close down for usual annual vacation of employes at this time.

L. W. Packard Co., owner of woolen mills at Ashland, N. H., has purchased the property of the Ashland Knitting Co. The latter company has had its mills closed for several years but at one time employed 200.

Alexander Smith & Sons Carpet Co., Yonkers, N. Y., is running on a curtailed schedule, averaging about three days a week for the working force. It is expected to continue on this basis until stock on hand has been further liquidated.

***Pendleton Woolen Mills,** Portland, Ore., have moved to their new headquarters, the four-story 100x100 ft. building formerly occupied by the Meier & Frank Co. warehouse at Second and Jefferson Streets. This is in accord with the expansion program planned for the mills.

LaFrance Mfg. Co., which several years ago bought from E. N. Sitton and family the plant and properties of the Pendleton Mfg. Co. at Autun, S. C., have purchased the former residence of Mr. Sitton, along with eleven acres of land. This action occasioned surmise as to whether or not the LaFrance com-

pany contemplates further enlargement of the mill. Officials state that they do not consider any additions in the future. When the property was first acquired substantial improvements were made.

Montreal Upholstery Co., Montreal, Canada, has awarded contract for the erection of a plant at Bates Road, Outremont, Que. Plans call for four stories, dimensions of 156x100 ft., concrete foundation, reinforced concrete construction.

Knit

W. B. Davis & Son, Fort Payne, Ala., have increased the production schedule at their mill and expect to develop regular capacity output with full working force in the near future.

Tuscaloosa Hosiery Mills, Tuscaloosa, Ala., are stepping up production at their plant and are said to be arranging for resumption of full time manufacturing schedule early in September.

Rivoli Silk Hosiery Co., Plainfield, N. J., is reported to have reduced wages from 70c. to 50c. a dozen on 39-gauge leggers in single jobs and all other departments in proportion. Rosedale Knitting Mills, Reading, is reported to have put into effect another reduction in wages.

Chalmers Knitting Co., Amsterdam, N. Y., is now running near capacity with a normal working force.

***Julius Kayser & Co.,** Brooklyn, N. Y., have active work in progress on their new mill at Melbourne, Australia, to be operated under the name of Julius Kayser (Australia) Proprietary, Ltd., recently formed as a subsidiary for that purpose. Machinery installation is under way, and it is proposed to have the unit ready for production early in 1931.

Bailey Knitting Mills, Fort Plain, N. Y., has sold property at that place to R. E. Schuyler, according to notice filed with the county clerk.

Aetna Mills of the **Wright Health Underwear Co.,** Troy, N. Y., are gradually increasing operations following the annual two weeks' vacation period.

Oneita Knitting Co., Utica, N. Y., has increased operations by enlarging its working force.

Lyerly Full-Fashioned Hosiery Mill, Hickory, N. C., is having its plant equipped with Bahnson humidifiers furnished by the Bahnson Co., Winston-Salem, N. C.

Sevier (N. C.) Knitting Mills, Inc., located 12 miles north of Marion, which has been idle for several weeks was sold recently for $10,000 to a group of Marion business men including W. W. Neal, prominent hosiery manufacturer. It is expected that operation of the plant will be resumed at an early date.

Wear Knitting Co., Tryon, N. C., which has been in the hands of Charles O. Smith, as receiver, for several months, was recently sold at public auction by Mr. Smith. The property was purchased by J. N. Cudd, of Spartanburg.

O'Brien Hosiery Mills, of Winston-Salem, N. C., have practically doubled their production by purchasing additional split-foot machines. This concern standardizes on 240-needle half-hose.

Berger Hosiery Mills, Philadelphia, Pa., have awarded a general contract to the George Kessler Construction Co., 1733 North Marvine St., for proposed new two-story mill at Lycoming and H Sts., 55x150 ft., estimated to cost about $50,000. A building permit for erection has been issued. C. Herman Wurster, Jr., 727 East Allens Lane, is architect.

Fairmont Hosiery Co., Philadelphia, Pa. Clarence H. Taubel has been appointed receiver in bond of $15,000 in an action taken on bill in equity filed by C. O'Neill Sons, a creditor, against the Fairmont Hosiery Co. It is asserted that the concern is solvent but lacks ready cash, and if conserved under direction of court will be able to carry on business.

Lackawanna Mills, Scranton, Pa., manufacturers of knit underwear, have disposed of their knit overcoating department to the Broadalbin (N. Y.) Knitting Co., who has taken over their inventories and also manufacturing and selling organizations. The business will be transferred to their plant at Broadalbin.

***Infant Socks, Inc.,** Fond du Lac, Wis., which recently enlarged its plant in this city with the addition of 65 footing machines and four loopers from the concern's plant in Waupun, is now in full operation. S. J. Luczak, superintendent of the plant, stated that the company would continue to operate its Waupun plant on a curtailed schedule.

Zimmerknit, Ltd., Hamilton, Ont., is in process of reorganization. Upon the application of the Royal Trust Co., trustee for the bondholders, and with the consent of the company, George T. Clarkson, of Toronto, has been appointed receiver and manager of the concern. The appointment was obtained for the purpose of facilitating the reorganization, pending which the business will proceed as usual.

Silk

Schwarzenbach, Huber & Co., have sold one of their mills located in Hackensack, N. J., at Broadway and Van Wetering Sts., to S. Goldberg & Co., West New York, N. J., who will use for another line of manufacture. The Schwarzenbach company is arranging to concentrate production at its other mills. The Hackensack mill has been owned by the company for about 25 years.

***Best Silk Mfg. Co.,** Pleasantville, N. J., had its new and larger building inspected, incident to its formal opening, by representatives of manufacturing and banking interests of New York, Philadelphia and Atlantic City. The plant was completed three months after the fire which destroyed the previous plant. John L. Best is president and Thomas D. Richter, vice-president of the company. The old building was burned in March. New equipment in the present structure was in operation by July 1.

A. Schottland, Inc., manufacturer of broad silks, Rocky Mount, N. C., now has 6,000 silk-throwing spindles in place and 102 looms.

Katterman & Mitchell Co., Stanley, N. C., has resumed operations on a 30-hour schedule, according to announcement. Employes of the day shift work during the morning, while those on the night shift begin at noon and operate the plant until 6 o'clock in the afternoon.

Hewesco Silk Co., Shamokin, Pa.—The Irving Trust Co., New York, and Edward Baker have been appointed ancillary receivers for this company, under bond of $5,000. The liabilities are estimated at $196,000 and the assets considerably in excess of that sum.

Chattanooga, Tenn. — Negotiations started two months ago by the industrial development department of The Tennessee Electric Power Co. with the firm of Rieback & Mandell, of New York, has resulted in the establishment of two new silk mills in Tennessee, at Rockwood and Fayetteville. Contracts have already been let for new buildings in both communities to house the necessary equipment and additional real estate has been secured to permit future expansion. The Rockwood mill will start with 40 modern silk looms for production of pure silk crepes and satin dress goods and will employ about 80 people on double shift. At Fayetteville 60 looms will be installed for the same class of goods and 100 people will be given work. The new mills are of the same general type and produce the same class of merchandise as the Welwood Mills at Winchester and Sparta, Tenn. These various Welwood plants were brought to Tennessee about 18 months ago from New York and Pennsylvania through the combined efforts of the industrial departments of the Tennessee Electric Power Co. and Nashville, Chattanooga & St. Louis Railroad, working in conjunction with groups of citizens in these towns.

Silk Mills of Canada, Ltd., Montreal, Canada, will at once continue the work of reconstruction of the burned portion of its mill at Acton Vale, Que., by day labor. Fire broke out on Aug. 3 in the $30,000 addition to the silk mill and about half of the construction which was under way was destroyed. Plans call for one story, 146x120 ft. reinforced concrete, steel and brick construction.

Rayon

Industrial Rayon Corp., Cleveland, Ohio, has taken out a permit for construction of a new radial brick stack, 300 ft. high, for power plant at its local mill on West Ninety-eighth St., to cost over $175,000. General contract has been let to the G. A. Rutherford Co., 2725 Prospect St., Cleveland.

Finishing

Schlake Dye Works, Inc., Chicago, Ill., have purchased the equipment of the American Textile Dye Works, Milwaukee, Wis., and will process cotton and woolen piece goods in the near future, it is understood. The package and skein dyeing department will operate as usual.

Lowell (Mass.) Bleachery resumed operations Aug. 18, after one week's shutdown, affecting 350 employes who have been working full-time.

*Indicates previous mention of project.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Pegging Plans for Gem-Head Pick-and-Pick Looms

Technical Editor:

I would like your help in making out a pegging plan for Crompton & Knowles gem-head pick-and-pick looms. First I want the pegging for two shuttles, black and white, to run pick and pick—one pick black, one pick white. Second, I would like the two pegging plans for the following: [Specifications reproduced with requested plans in Figs. 3 and 4.] Also, please tell me how many shuttles can be run on a four-by-four pick-and-pick loom, as this is the type of loom I am referring to in this letter. (7286)

We have made the accompanying pegging plans according to your specifications. Fig. 1 is for two shuttles, one black and one white. Plans *A* and *B* in Fig. 2 are the same as the one in Fig. 1, but are to be woven with four shuttles, two white and two black. Plan *C*, in Fig. 2, is also the same as the plan in Fig. 1, except that it is to be woven with three shuttles, two black and one white. In *A* there are no skip boxes, but in *B* there is one—one pick off each shuttle.

Fig. 3 gives the first plan you ask for in your second request. Plan *A*, in Fig. 3, is for three shuttles, one white and two black. Plans *B* and *C*, in Fig. 3, are for four shuttles, one white and three black. Fig. 4 gives the second plan you ask for in your second request. Plans *A* and *B* in Fig. 4 are for six shuttles and six colors, one shuttle to a color. The difference between the peggings *A* and *B* lies in the shuttle arrangement in the boxes.

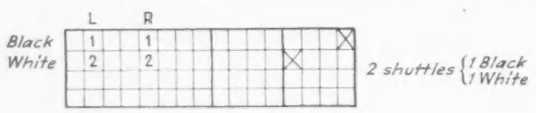


Fig. 1

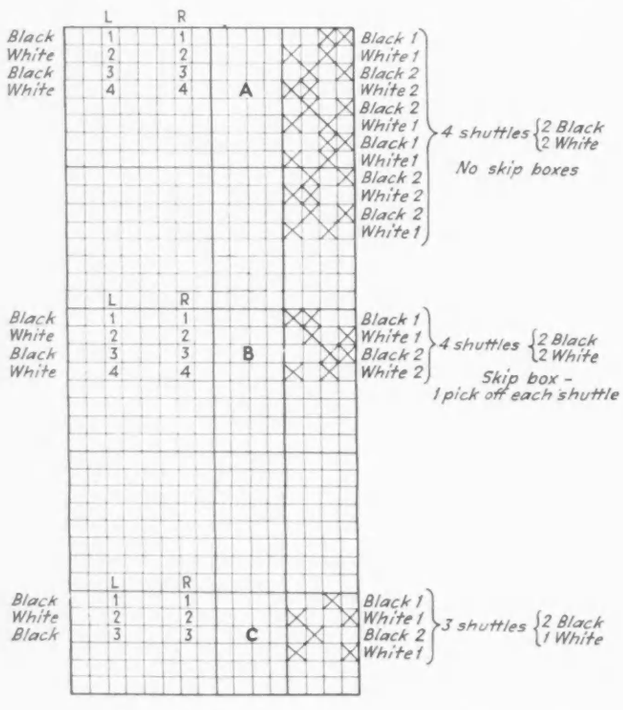


Fig. 2

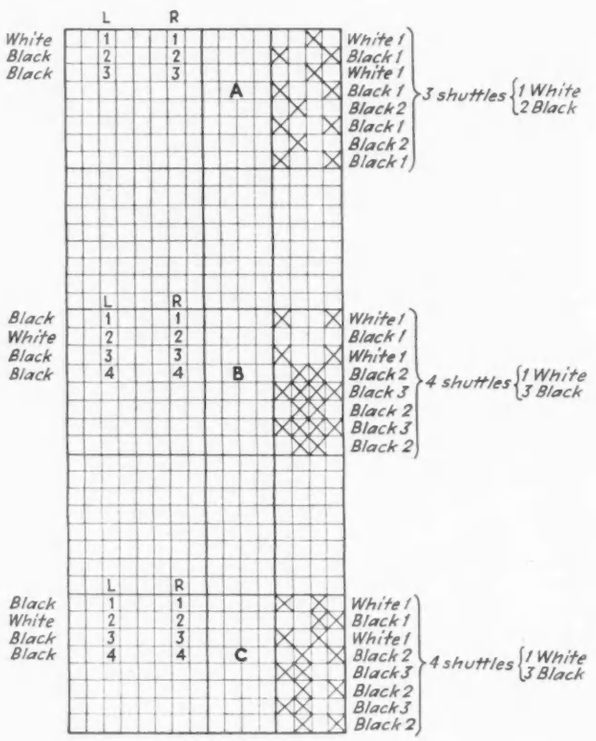


Fig. 3

We are not able to tell you which arrangement of your boxes would be the best, as the count, quality, and construction of the cloth; the age of the loom; and the purpose for which the loom has been previously used have a bearing on the selection. If your looms are old and have not woven four or six shuttles for a long time, you probably will have trouble in starting them up. We suggest that you give them a good overhauling, oil them up, and run them idle for a day before putting in a warp. Be sure also to have protection around the looms, otherwise flying shuttles may cause injury to weavers on nearby looms.

It is possible to run seven shuttles on a four-by-four loom.

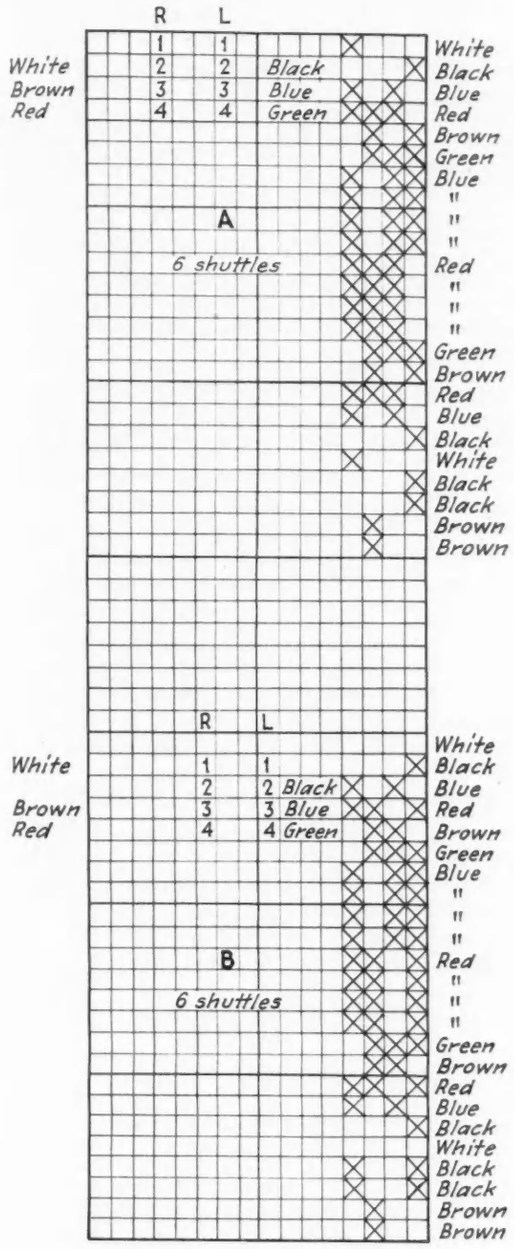


Fig. 4

Equipment for Knitting Rayon

Technical Editor:

We are contemplating the manufacture of colored rayon shirts and materials. Our knitting mills are equipped only with rib and chain-stitch machines, and we should like to use this equipment. We have just conducted a few experiments with rayon on these machines; we find, however, that there is a good deal of running when a stitch breaks, that the colors are not fast, and that the garment stretches considerably when it becomes wet. For these reasons we are extremely interested in receiving any information that would help us to solve our problem. *(7219)*

There is considerable question regarding the practical production of rayon underwear fabrics on machines manufactured for knitting cotton or worsted. Ordinary fabrics are best made on a fine-gauged machine. Usually, about 28 needles per inch are used for 150-denier yarns.

If you use a very tight stitch, the stretch will doubtless be at a minimum. Since rayon stretches readily when wet, the garment should be made the proper size when dry. It should recover to this size if the fabric is properly made. Do not stretch the fabric when wet before cutting the garment, as a fabric stretched and dried is likely to recover to its normal condition after one washing. This will make the garment the wrong measurement.

Rayon can be dyed with colors that will satisfy all fastness requirements. If you are purchasing dyed yarn, it is necessary to specify that fast colors are required. If you are dyeing the rayon, any of the larger manufacturers of dyestuffs will be glad to recommend the dyestuffs best suited to your needs.

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

◆

Bleaching Angora Wool

Technical Editor:

Will you kindly advise me the best way to secure, with as little handling as possible, a good white and soft feel on angora wool. I am familiar with the sulfur bleach, but do not wish to use this method. *(7252)*

The best bleach in any case is obtained with peroxide. To shorten the operation and eliminate labor, you may combine the bleaching and scouring operations. To do this, make a soap bath as usual; reinforce it with soda ash—or better, silicate of soda—and add hydrogen peroxide, keeping the temperature around 120° F. Keep the wool immersed in the bath for at least one-half hour and then rinse well in warm water.

Ordinary Angora wool should not require a severe bleach; but if it is very much discolored, you will need to increase the strength of the peroxide and lengthen the time. This process will give you the desired results in one bath and can be carried out in almost any sort of vessel, providing there is no corrosive metal exposed to the liquor. If the wool is well rinsed, it will be very soft; but if some of the soda or silicate is left in it, there may be a harsh feel.

◆

Soap for Fulling and Scouring

Technical Editor:

Will you kindly send me a formula for tallow soap, one that may be used for fulling and scouring? I should like to make the soap from raw tallow, caustic, and soda-ash. *(7284)*

Some of the larger soap companies have investigated throughly the use of soap in various processes and they have developed products which, in our opinion, are far superior to those ordinarily made in the soap-making department of a textile mill. We therefore believe that the best thing you can do is to purchase a good soap

from a reputable manufacturer. Soap making is simple, when the time required can be given to its manufacture; but if made by unskilled men, there is considerable danger. Free caustic will dissolve wool. If not enough caustic is added to saponify the tallow, gummy curds will settle out and become attached to the goods.

We are, however, giving you herewith a recipe which, if followed carefully, will give a good soap:

Run 290 lb. tallow into the soap kettle, turn on steam to melt the fat, add approximately 50 gal. of water, bring to boil, add slowly 86 lb. of caustic soda at 50° Bé., and boil until a clear transparent product is formed, or until saponification is complete (about three hours). Next add 35 lb. salt, agitate, boil for one-half hour, and allow to settle. The soap will rise to the top; and the salt solution, taking with it the excess alkali, will settle to the bottom of the tank. Allow to settle over night, draw off the wash liquor, and test the soap for free alkali. If free alkali is still present, another salt wash is necessary. When washing is complete, add enough water to make 1,000 lb., and boil until a homogeneous product is obtained. If soda ash is to be added, it is dissolved in the water that is added to make up the proper volume. We do not specify any particular amount of soda ash, because the quantity will vary according to the class of goods on which the soap is used.

◆

Broken Ends in Silk Stockings

Technical Editor:

Enclosed you will find two stockings, one dyed and one undyed. The dyed stocking shows broken silk ends, while in the undyed stocking we find none. The dyed stocking was boiled off in 10% olive-oil soap at 200° F. and then dyed in soft water at 200° F. Will you kindly advise use as to the cause of the damages to the fabric? (7292)

Careful examination of the undyed stocking shows many broken ends being held closely in position by the gum on the silk. We believe the trouble to be largely one of excessively tight knitting. The undyed fabric clearly shows that the machine is overloaded, or rather that the fabric is too tightly knitted for the gauge of the machine. This is clearly shown by both the unfinished and finished stockings, as the wale stitch is much wider than the needle stitch. The broken filaments are caused primarily by drawing too tight a needle stitch, and the trouble is very likely further augmented by rough sinkers and knocking-over bits, which are brought into heavier duty in knitting fabric of as tight a construction as in the samples.

We believe that if you will loosen your fabric about two courses per inch, you will find that the trouble will largely disappear. We note that both stockings are knitted much looser in the foot than they are in the leg; and this of course is objectionable, but in this instance we should advise loosening the leg fabric to suit the foot rather than tightening the foot fabric.

It is, of course, thoroughly possible to produce broken filaments in silk in the degumming and dyeing operation. However, we feel that such trouble is too well known to emphasize particularly. It is important to carry out the degumming and dyeing operations in dye nets suitable for the purpose and to avoid rough handling of the goods. They should not be allowed to come in contact with rough surfaces of any kind in the dyeing and finishing.

Scouring Cotton, Wool, and Rayon Jerseys

Technical Editor:

I should appreciate your sending me formulas for scouring all-cotton jerseys, all-wool jerseys, and all-rayon-knit fabrics, including the actual time needed in scouring them. Do you recommend dyeing pure-silk knit fabrics with 20% glauber salt and 3% sodium phosfate with direct dyes at 190°F., and exhausting the bath with 3% acetic acid? Do you think it best to use a broken soap bath for dyeing pure silk fabrics? If so, what is the formula? (7281)

The following formulas will give satisfactory results for scouring the various types of fabric in question: (1) cotton jerseys—2% soda ash and 2% good soap, 1 hour at a boil; (2) wool jerseys—3 to 4% olive fig soap and 2% trisodium phosfate, 1 hour at 120°F.; (3) rayon jerseys—4% scouring oil and 2% trisodium phosfate, 1 hour at 200°F.

We see no reason for the use of sodium phosfate in the dyeing of pure silk fabrics unless you are having difficulty in getting level shades. The phosfate will retard the dyeing, and in this way will promote level dyeing. If you desire to use this compound, we suggest cutting the amount to 2%, unless the water is extremely hard. Many plants are using the broken-soap method for dyeing all-silk fabrics; but by using the recipe you suggested, we believe you will be less likely to get into difficulties. We recommend exhausting the dye bath at a boil unless the goods are too sheer to stand the action. If acetic acid is to be added, care must be taken; otherwise streaky work will result.

◆

Cost of Manufacturing Plush

Technical Editor:

Will you kindly figure the cost per single yard on the enclosed plush sample, which is woven two pieces on the loom (top and bottom) under the following conditions:

Warp 20/2 cotton, 4,256 ends, 35½c. per lb.
Filling 20/2 cotton, 32½c. per lb.
Pile 20/2 cotton, 2,000 ends, 32c. per lb.
Width, 57½ in. between edges, about 30 picks per in.
Width in reed overall, 59 in.
Weight and yards of the pieces after they are woven:
Top piece, 52.4 yd.—54 lb., 2 oz.
Botton piece, 52.4 yd.—56 lb., 5½ oz.
Finishing, 18c. per yd.
Weaving, 12c. per yd., double yd.
Commission, 2c. per yd.
Overhead, 10c. per yd. (7279)

No pile-warp contractions are given in your inquiry, but we have endeavored to find the solution to the problem in a practical manner, as the following figures will show:

Top cloth, 52.4 yd., weighs 54 lb., 4 oz.; 1 yd. weighs	1.03 lb.
Bottom cloth, 52.4 yd., weighs 56 lb., 5½ oz.; 1 yd. weighs	1.04 lb.
Total weight per yard of all warps and fillings in both cloths equals	2.07 lb.
Weight of 4,256 ends of 20/2 ground warp at 7%	0.5448 lb. per yd.
64 picks of 20/2 filling 59 in. reed width	0.4496 lb. per yd.
Total weight of ground warps and filling	0.9944 lb. per yd.
Total weight of both cloths	2.07 lb. per yd.
Less weight of ground warp and filling	0.9944 lb. per yd.
Gives weight of the pile warp, 2,000 ends of 20/2 with a contraction of about 427%	1.0856 lb. per yd.
Ground warp, 0.5448 lb. per yd., at 35½c. per lb., equals	$0.1934
Filling, 0.4496 lb. per yd., at 32½c. per lb., equals	0.1461
Pile warp, 1.0856 lb. per yd., at 32c. per lb., equals	0.3474
Finishing, 18c. per yd., equals	0.1800
Commission, 2c. per yd., equals	0.0200
Overhead, 10c. per yd., equals	0.1000
Total cost per yd., equals	$0.9869

New Machinery & Processes

Automatic Jacquard Flat Knitting Machine

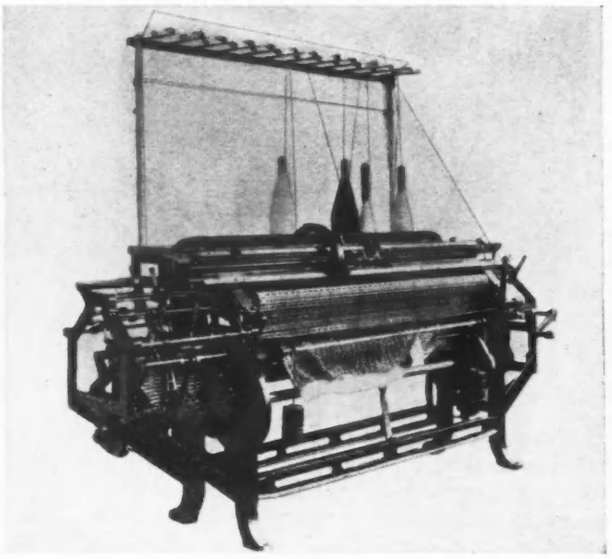
JOHN EPPLER Machine Works, American and Buttonwood Sts., Philadelphia, Pa., has placed on the market a fully automatic jacquard flat knitting machine capable of making fabric having the same design on both sides. This patented machine is the invention of Hyman Max Zippel, who represents the Eppler company as sole selling agent. Special features of the new machine include individual control of each needle, short controlling chains governing every mechanical movement of the machine, double cam action, and visibility of operating parts.

The jacquard designing cards consist of perforated metal strips extending the entire length of the needle beds. There is a set of these cards for each of the two needle beds. Each of the two chains of cards passes over a grooved cylinder which rises against the lower ends of the needles before each traverse of the carriage. Where the cards are perforated, the needles pass through into the groove of the cylinder and are undisturbed. Where there are no perforations, the cards push the needles up into tucking position. It then depends upon whether the stitch cams in the carriage are withdrawn or are allowed to remain in position as to whether the needles will rise sufficiently to allow the loop to slip below the latch.

The controlling chains may be seen in the accompanying photograph, located on the left-hand side of the machine. The cross bars of these chains are composed alternately of steel and brass, in order that the operator can determine readily which side of the machine the carriage should be on at any time. Both chains are identical in construction and purpose, and the action may be automatically transferred at will from one chain to the other, this arrangement obviating the necessity for chains of excessive length.

In each chain bar there are eight holes for the studs. Each stud is for a separate purpose, as follows: first stud, back jacquard drum; second, front jacquard drum; third, yarn-carrier changes at back; fourth, yarn-carrier changes at front; fifth, back-cam changes; sixth, front-cam changes; seventh, front-needle-bar racking; eighth, in or out action of next chain drum. Studs may be inserted ranging in height by eighths of an inch from $\frac{1}{8}$ to $\frac{7}{8}$, depending upon the height to which it is desired to raise the controlling levers to obtain the operation desired.

The front and back jacquard cylinders are raised and lowered by internal cams, in which roller bearings are employed. The controlling chains are likewise operated by internal cams, which lower the chain drums from the levers during the turning of the drums, in order that the chain studs will not be obliged to push sideways against the levers when coming to position. The double mechanical cam arrangement is individually controlled by levers through the chains to allow changing automatically from double-lock to single-lock, or vice versa. This



Automatic jacquard flat knitting machine

arrangement also permits other changes in the position of the cam to enable the production of the type of fabric desired.

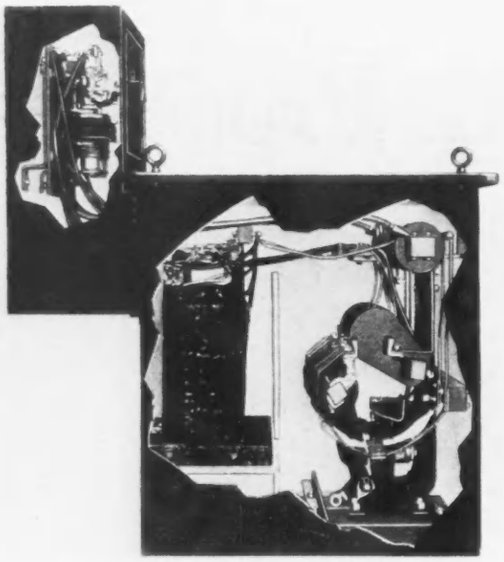
The take-up rollers are automatically controlled for tight or loose knitting. Necessity for a large set of jacquard cards is obviated by provision for automatically turning the front and back jacquard drums either inwardly or outwardly, or for keeping them stationary. The inside cams can be set automatically to skip certain cards at any time. Only single-butt needles are employed, and no jacks or springs are needed.

Products which can be made on this machine include the cardigan jacquard with the desired design on both sides of the fabric in colors or plain, one-piece sport coats with double bottom and ribbed cuff, one-piece bathing suits with double bottom, all kinds of half-cardigan and full-cardigan and cuff stitch with six-needle rack, all kinds of tuck stitches and welt stitches, and all kinds of regular jacquard single lock (front and back). It is stated also that this machine is expected to open a new field for draperies and blankets of silk, wool, and mixtures.

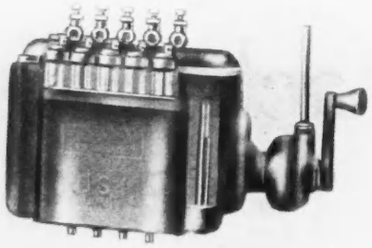
The knitting may be changed automatically from any of the fancy stitches to any ribbed stitch. The machine is built in 60-in. lengths of working space and with ten needles per inch. This size will permit knitting large bodies or skirts in one piece.

"Slack Loop" Bleach-House Washer

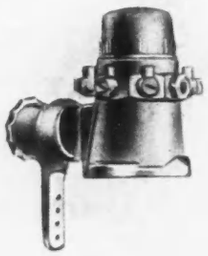
FOR the continuous wetting out, rinsing, and washing of woven and knitted fabrics in the string, Rodney Hunt Machine Co., Orange, Mass., has placed on the market a new "slack loop" bleach-house washer. This machine is designed to process the goods without stretch



Cut-away view of full-voltage magnetic starter



Mechanical lubricator suitable for medium and large-size equipment



Mechanical lubricator for small and medium-size equipment

or distortion, and may be used in either the peroxide or chlorine method of bleaching. It is stated that utilization of the counter-current flow principle makes a great saving in the amount of water used, and in conjunction with the slack-loop principle insures thorough and efficient rinsing.

The washer is provided with a wringer for giving the goods a final squeeze as they leave the machine. It is also equipped with "White Seal" rolls with drip flanges and anti-friction bearings; folding cleat roll; spring pressure over top roll; new inclined type, non-leaking suds box with two-way discharge valve; and unloading doffer roll.

Mechanical Lubricators

MECHANICAL lubricators in various types suitable for industrial uses have been developed recently by Nathan Mfg. Co., 250 Park Ave., New York. These industrial lubricators are applicable to internal-combustion engines, steam engines, pumps, compressors, machine tools, presses, and other equipment. Mechanically the industrial lubricators are similar to the well-known Nathan locomotive lubricator. They are designed to provide the necessary pressure to deliver the lubricant directly under the load and thus insure efficient, positive lubrication. In addition they are readily adjustable as to the quantity of lubricant delivered to the moving part, thereby effecting economical lubrication and eliminating over-lubrication.

The lubricators are furnished with ratchet or rotary drive, and with one or multiple speeds. Various types and sizes are available with or without oil reservoir. They are designed to work against any pressure with any grade of lubricating oil and to start and stop automatically.

Automatic Scale

ERRORS in weighing due to either overweight or underweight are said to be prevented by means of an automatic scale announced recently by Toledo Scale Co., 270 Madison Ave., New York. The chart of this instrument shows simply a line marked "O," flanked on one side by the word "under," and on the other by the word "over." There are two platforms, one to hold the article to be weighed, the other to carry the check weights. Upon the latter platform the attendant places whatever weight he wishes his finished article or package to reach, he then "sifts" or feeds in enough of the article being weighed so that the indicator comes to rest upon the zero line. Errors in reading are practically impossible.

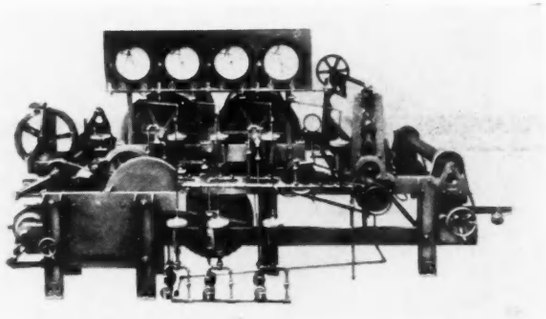
Sensitive even to $\frac{1}{64}$ oz., this scale is said to weigh accurately and instantaneously even when out of level. It is not necessary to center the weights and commodity on their respective platforms; wherever they are placed the result is precise. This permits greater speed with no sacrifice of accuracy. The finish is of durable, gray, baked enamel. The frame is of rigid cast iron. Exposed metal parts are chromium and stainless steel. Scoops, pans, and special-commodity receivers are available for unusual requirements.

Full-Voltage Magnetic Starter

RADICAL changes in design from the switchboard circuit-breaker type of starter for high-voltage a.-c. motors have been made in a new full-voltage magnetic starter announced by the Electric Controller & Mfg. Co., 2700 East 79th St., Cleveland, Ohio. This Type ZHS, 2300-volt starter, complete with overload relays and self-contained potential transformer, is intended for across-the-line starting of squirrel-cage and synchronous motors. It may also be used to control the primary of slip-ring motors, and is built for reversing, non-reversing, and plugging applications.

The magnet armature, carrying the moveable contact arm, is direct acting and is supported by only one large bearing pin. Since the entire unit is totally oil-immersed, all working parts are always well lubricated and protected from dust and corrosion. This permits the equipment to be ready for operation at any time, whether it is out of service for a few minutes or for several months. The con-

Automatic scale



Sizer equipped with automatic temperature control and high pressure quetsch

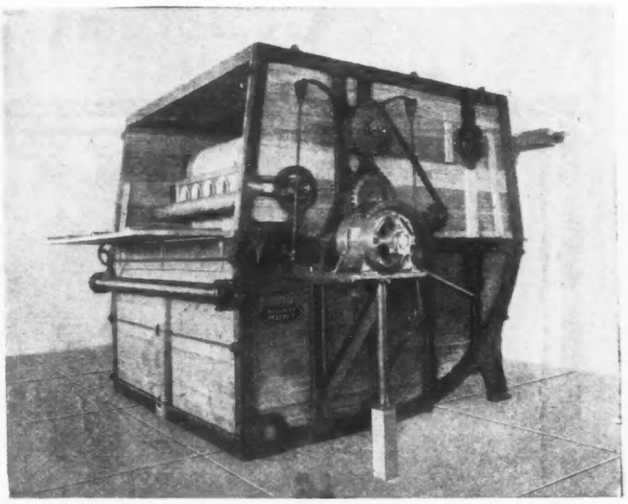
tacts open and close the circuit with a wiping and rolling action; they are duplicate and are easily renewable.

A welded-steel tank houses the completely wired unit. A longer tank, containing two Type ZHS magnetic contactors mounted back-to-back and mechanically interlocked, is supplied for reversing, non-reversing, and plugging applications. This unit construction is said to provide a flameproof, corrosion-proof and dustproof installation that may be mounted anywhere with perfect safety. All live parts are totally enclosed, and grounding the case provides a shockproof installation. The starters are available in two sizes, with maximum ratings of 600 hp. and 1,200 hp. respectively. These starters may be controlled from a Type M master switch, which can be arranged to provide low-voltage release or low-voltage protection. The starters may also be controlled from float switches, pressure regulators, altitude regulators, and similar actuating devices.

Sizer with Automatic Temperature Control and High-Pressure Quetsch

TWO important improvements—fully automatic temperature control and a new-type high-pressure quetsch—have been made in the warp-sizing machine manufactured by Charles B. Johnson, 10 Ramapo Ave., Paterson, N. J. These innovations, which are designed to insure even sizing and drying of warps and complete penetration of size, are expected to be of particular interest to manufacturers of fabrics of spun silk, rayon, and other synthetic fibers. Automatic temperature control is said to result not only in more even sizing, but also in increased pliability of warps and reduced breakage in the loom. Likewise, baking of ends is prevented, boiling-off of sizing is facilitated, and even dyeing is promoted.

Three-position pilot switch



Slack-loop bleach-house washer

The instruments for temperature control are manufactured by the C. J. Tagliabue Mfg. Co. Each cylinder and the size box has its independent control. By turning a thumbscrew, the desired temperature can be set on a dial; and that temperature is then maintained as long as desired by the automatic control. Since the operator does not have to watch cylinder thermometers or gages, or turn steam on and off, he is able to concentrate his attention on the warps as they go through the machine.

The three-roll, high-pressure quetsch is designed to give an even squeeze over the entire width of the warp, and at the same time to allow the adjustment of pressure necessary to produce complete penetration with various types of rayon which require more or less squeeze. Instead of using two handwheels, one at each end of the rolls, to control the pressure, one wheel is now employed. The ends of the rolls are of larger and stronger construction than heretofore, and are fitted with heavy-duty ball bearings. Both the automatic temperature control and the high-pressure quetsch can be applied to any standard Johnson sizing machine now on the market.

Three-Position Pilot Switch

MOTOR driven pumps, compressors, and similar machines which are controlled by an automatic pilot device, such as a float switch, pressure switch, or time clock, often require some means of starting and stopping the motor manually. For this purpose, Cutler-Hammer, Inc., 207 Twelfth St., Milwaukee, Wis. has developed a new three-position pilot switch. The operating lever can be placed in either the "automatic," "off," or "manual" position. When turned to "automatic," the automatic pilot device is in circuit and normal, automatic operation is obtained. With the lever in the "off" position, the pilot circuit is opened and the motor cannot be started from any other control point. Turning the lever to the "manual" position closes the control circuit direct, and the motor will run continuously regardless of any other control devices as long as there is operating voltage on the line. The construction is extremely simple. It consists of a two-button pushbutton switch inside the case, the buttons of which are operated by a cam attached to the operating lever. The lever will remain in any one of the three positions.

Durene

REG. U.S. PAT. OFF.

NATURAL, BLEACHED AND COLORED

YARNS

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432 Fourth Ave.
NEW YORK

418 Franklin St.
READING, PA.

323 So. Franklin St.
CHICAGO, ILL.

James Building
CHATTANOOGA, TENN.

52 Chauncy St.
BOSTON, MASS.

HAMILTON, CANADA

LOS ANGELES

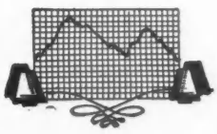
MILLS

CHESTER, PA.

BELMONT, N. C.

ABERFOYLE MANUFACTURING COMPANY

TEXTILE WORLD ANALYST



Little Hope of Early Business Advance

Delayed Recovery Indicated by Most of Evidence Available, Says Dr. Haney

SUMMARY

Business in general shows scant signs pointing to any considerable advance within the next few months. Prices of textiles, however, are now below their average relation to the general level of commodity prices, promising some relative improvement soon.

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The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

ALTHOUGH there are some indications that certain industries may be "scraping bottom," there is little evidence to support hopes of any early general improvement. It remains true that no proven barometer of general business activity points upward, and this fact makes it improbable that a sustained general advance will develop inside of three months. The more pessimistic observers, therefore, reason that, as a more-than-seasonal autumn recovery is improbable, the upswing must be postponed until next spring. The failure of a deliberate attempt to start a recovery by putting the stock market up tends to confirm this opinion. The absence of commodity shortages, the poor buying power at home and abroad, and the existence of much frozen bank credit, also support it.

Favorable Factors

On the favorable side, we can say that:

1. Drought damage has been reduced by recent rains.
2. Liquidation of frozen bank credit is proceeding, and capital has been leaving speculation to return to business, while the bond market shows good progress in spite of large issues.
3. Production in most industries has been curtailed to levels which will adjust supply to demand.
4. Commodity prices are getting down to levels which may soon stimulate buying.
5. Building activity seems near to improvement; July permits increased, contrary to the normal seasonal variation.
6. Cotton textile manufacturers' statistics show improvement, as stocks decrease and unfilled orders increase.
7. Total stocks of copper (blister and refined) have declined two months in succession, while domestic shipments have increased.

Clearly the most sound of the bullish arguments are negative in character. They merely point to progress made in the way of liquidation and curtailment, and reason that the end of the recession must be near. They do not say when activity of a more-than-seasonal character is to be expected.

Unfavorable Factors

The most fundamentally unfavorable conditions are as follows:

1. Stocks of basic commodities have not been liquidated and are too large, while production in many lines has not been sufficiently curtailed (either in amount or in duration) to bring relief.
2. Credit is largely "frozen" in excessive loans on securities and real estate, and bank failures continue to run about one hundred per month.
3. The purchasing power of laborers and farmers continues to be reduced.
4. As a result, commodity prices continue to decline, killing all interest in forward buying.

In addition, the most recent developments show unfavorable trends such as the following:

5. July department store sales declined more than usual.
6. Employment in factories continued its downward trend.
7. Building activity is still very low.
8. Railway traffic and earnings declined to very low levels.
9. The steel industry has receded at a time when seasonal gains are expected.
10. Foreign trade reached a new low level in July, both exports and imports being the lowest since early in 1922.
11. The sharp decline in June wholesale dry-goods sales is especially important for textile industries.

The drought damage, while probably not as serious as many had feared, has hurt important farm sections and certain industries such as electrical power, can manufacturing, farm implement, automobile, and steel production, and railways. It appears to have slowed up the dry-goods business.

Textile Prices Relatively Low

As in 1921 and for a brief time in 1926, textile prices are now below their average relation to the general level of commodity prices. Moreover, as in other periods of depression, cotton is now leading the decline, and seems likely to act somewhat as it did in 1926. The rise in wool prices seems untimely and contrary to the general trend. Wool is now the dearest among the chief textile fibers; silk is relatively the cheapest.

With cheaper labor and improved organization and methods, the relatively low prices of textile materials should now begin to increase the textile indus-

QUITEX

Spun Rayon

A NEW spun rayon with a fashionable dull lustre and strength which gives impetus to fabric sales — — The Quissett 20-year tradition of fine cotton spinning assures you of a dependable source of supply on this new product — — — — Let us send you samples of Quissett Spun Rayon — —

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New Bedford, Mass.

Wm. M. Butler, Pres.
Edward H. Cook, Treas.
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Our quotations based on Cost + a resonable profit.

QUISSETT MEANS QUALITY

tries' competitive power for the consumer's dollar.

Cotton Manufacturers Point Toward Improvement

The plain fact about the cotton manufacturing business is that the volume is low and the manufacturers' margins are not sufficient for fair profit. Accordingly, earning power is poor. Judged by our rough statistical measurements, average earnings in July were the lowest since the middle of 1924. Cotton mill stocks continue to recede, notably southern mill stocks. These averaged 83.2 in July, against 86.2 in June and 106.4 a year ago. But indications of approaching improvement are not lacking, for replacement margins have risen as raw cotton has fallen more than cotton textiles.

Moreover, the actual profit margin earned (allowing for the usual lag between the purchase of material and the completion of manufacture) shows a slight improvement. Cotton mill consumption in July fell a little less than usual for the season. At the same time, Cotton Textile Merchants' Association figures indicate a trend toward an improved statistical position. If they continue recent policies, cotton manufacturers may soon begin to reap the profit of curtailment through cheaper raw material and firmer textile markets. A July increase in gray-goods replacement margin is regarded as a favorable indication.

Wool Outlook Beclouded

The average price of wool mill stocks decreased in July, and the manufacturers' profit margins have been reduced both by higher raw wool and by lower woolen and worsted goods prices. Probably the spurt in machinery activity during May and June was overdone. Some further adjustments now seem to be required.

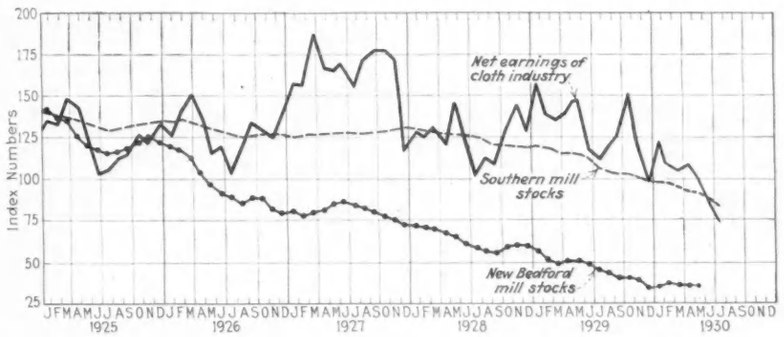

Fig. 1—COTTON MILL EARNINGS AND SECURITY PRICES—Net Earnings in Cotton Cloth Industry—Computed from the cost of raw material, labor, fuel, etc., the price of finished goods and the volume of production (New York University, Bureau of Business Research). New Bedford Mill Stocks—Average price 25 New Bedford cotton mill stocks (New Bedford Standard). Southern Mill Stocks—Average price 25 Southern cotton mill stocks (R. S. Dickson & Co.).

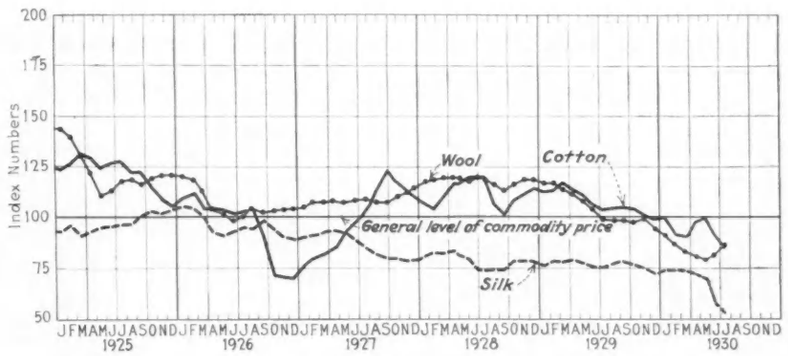

Fig. 2—TEXTILE PRICE LEVELS—Chart shows how chief textile fibers compare (1) with the general level of commodity prices and (2) with each other. The 100 line = average of all commodity prices, and fibers are normally priced when near the general level. The several fiber price curves are so placed that normally they should be close together.

The Textile Trend

Cotton Textile Markets—Weavers have decided to continue curtailment in output of print cloth and sheetings; demand at this end is light, and some surplus has accumulated. Present buying spotty, with no real call at any end. Sales of gray goods and colored goods better than expected, considering weakness of raw cotton. Buying accents price, however, and most sales are accompanied by drastic concessions; some mills offer special low rates on November-December and even first-quarter business. Carded yarn trading light; there is much under-pricing, but few takers. Insulating group and carpet trade have placed some business in cotton yarns.

Wool Textile Markets

Market tone stronger, but sales have not picked up. Garment manufacturers complain lines are not moving, and refuse to buy wool goods until their own sales improve. Fall sale of fabrics is still behind, and no real rise is expected before the end of the month. Worsted dress fabrics have improved; low and medium-priced lines are in steady call, all orders being small and spot. Considerable underselling reported among smaller mills. Confidence regarding fall gains, and September is expected to mark an improvement. Worsted yarns were barely steady and in small demand among most of their regular users.

Knit Goods Markets

All knit-goods markets are improving slowly, though there is a disposition to over-confidence at the hosiery end. Certain hosiery knitters are producing for stock, in expectation of a big September-October demand. The outlook for these months is good, but no sharp rise should be looked for. Buying is spotty; women's full-fashioned moves unevenly, with prices so trimmed as to leave scant profit. Heavyweight underwear sells actively, mostly for nearby delivery; many distributors are still holding off, and there is a possibility of a shortage, if they defer much longer. The 1931 bathing-suit lines are opening slowly; knitters are pricing in conformity with yarn quotations, which means a moderate cut below last year. Some early buying of 1931 bathing-suits reported.

Silk Textile Markets

Raw silk is quiet, with prices weak. There was little interest at any end, and Aug. 15 the Raw Silk Exchange reported "no sales." Throwsters are doing a fair business in canton yarns, but grenadines are slower, and there is no call for trams; prices unchanged. Fall orders for spun yarn are backward, and there are prospects of a last-minute pressure in September; a good call from woolen and worsted manufacturers is expected shortly. Demand for broad-silks has eased off, and buyers are stressing price; mill men have difficulty in getting list figures; sales behind last year.

COTTON
and
WORSTED YARNS

. . for every standard need of the knitting and weaving trades. And if you require something "special", these mills are ever ready to cooperate in producing the yarns to suit your styling requirements.

●

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Combed yarns spun from American or Sakellarides cotton.

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Combed yarns for knitting and weaving.

MONOMAC SPINNING CO.

French Spun worsted yarns for knitting and weaving.

ACADIA MILLS

Mercerized yarns—natural, dyed or bleached.

TALLAPOOSA MILLS
MARY LOUISE MILLS

High grade carded weaving yarns.

ARLINGTON MILLS

Bradford Spun worsted yarns for knitting and weaving.

Further Quiet in Textile Stocks

General Prices Not Much Changed in Dull Period

THE quiet end-summer period is at hand in the market for textile shares. Sluggishness in the general security market accentuates the seasonal slump and consequently there is an exaggerated inactivity in all centers where textile shares are handled.

For several days this week there were no transactions in American Woolen Co. common or preferred on the N. Y. Stock Exchange. The last sales on Wednesday were recorded at 11 for the common and 26½ for the preferred, a gain for the former and a loss for the latter. Consolidated Textile sold at ⅞ on Wednesday. Mallinson sold at 7½ to 8 on Tuesday with no sales on Wednesday. There was little evidence that buyers or sellers of these or similar textile stocks were desirous of forcing an issue. Apparantly most holders believe the worst has been discounted and they do not want to liquidate on the present sacrifice basis. But buyers on their side do not seem to regard the present basis as attractive.

Offerings at the Boston stock auctions on Wednesday were limited to small lots of few companies. Thirty shares of Naumkeag went at 84 to 87, the last figure a gain of 1 point from previous sale; also 10 shares of Farr Alpaca were sold at 69¾ a gain of 1 point. Several lots of Orswell and Sharp changed hands at nominal prices and 42 shares of Associated Textile went at 35 to 36½.

Further mill statements issued during the week showed losses for the first half of 1930 which had been more or less recognized and discounted. Duplan stands in contrast to many sister companies by showing earnings for the year ended May 31, 1930 of $2.56 per share of common after preferred dividends. The table below lists in condensed form the statements of six mills.

Duplan Earnings Larger

The Duplan Silk Corp., and subsidiaries, report net income after taxes and charges for the year ended May 31, 1930, of $1,243,945, equal after preferred dividends to $2.56 per share on 350,000 shares of no par common stock. In the 1929 fiscal year earnings were equal to $2.48 per share of common and in 1928 to $1.86 a share. Net sales of $19,762,125 were the largest for any year since the war, and compare with $17,619,950 last year, and $19,572,208 in the year ended May 31, 1926, the previous high record. Current assets on May 31, 1930 were $7,430,508 and current liabilities $989,471, including a tax reserve of $200,000, leaving net working capital of $6,441,037, compared with $6,270,992 on May 31, 1929.

Mallinson Shows Loss

The report of H. R. Mallinson & Co., Inc., and subsidiaries, for the first half of 1930, shows a consolidated net loss of $374,286 after deductions for interest, depreciation, bad debts and other items; this compares with a net loss of $132,790 in the first half of 1929. The company's consolidated balance sheet, as of June 30 last, indicates current assets of $4,143,955 against liabilities of $2,059,881. Inventories total $2,713,611, as of June 30, against $3,060,133 on Dec. 31, 1929.

The company's balance sheet shows a reduction in its surplus from $3,167,519 on Dec. 31, 1929 to $2,763,161 on June 30, 1930. The notes payable to bankers have been reduced to $1,300,000 from $2,045,000. The consolidated balance of H. R. Mallinson & Co., Inc., includes Erie Silk Mills, Pussy Willow Co., Inc., and H. R. Mallinson & Co., Inc., Illinois corporation.

Belding, Heminway Shows Loss

The Belding, Heminway Co., silk manufacturers, reports for the six months ended June 30, 1930, net loss of $1,155,381, after depreciation, interest, inventory write-offs, and reserves; for the corresponding period of 1929 the company reported net profit of $191,296. Current assets as of June 30. 1930 totaled $6,073,014 against liabilities of only $253,395, leaving working capital of $5,819,619.

Quiet and Unchanged in South

Charlotte, N. C.—Trading in southern cotton mill shares continued quiet throughout the week ended Aug. 16, according to the weekly review of R. S. Dickson & Co. The closing bid price of 25 common stocks stood at 69.88 per share as compared with the same figure for the previous week.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
42	Associated Textile	...	35–36½	...
30	Naumkeag	100	84–87	+1
20	Orswell, com.	100	$5 for lot	...
75	Orswell, p'd.			
10	Farr Alpaca	100	69¾	+1
50	Sharp, com.	...	5c.	...
227	Total.			

MILL STATEMENTS

Name and Address of Company	Line of Business	Fiscal Year	Assets						Total	Liabilities and Capital		
			Cash and Debts Receivable	Raw Materials, Mdse., Etc.	Total Quick Assets	Real Estate, Buildings and Machinery	Miscellaneous Amount	Miscellaneous Description		Accounts Payable, Floating and Funded Debt	Capital Stock	Surplus, Profit and Loss, Etc.
Mass. Mohair Plush Co. Lowell, Mass.	Wool	May 31, 1930	$595,402	$1,333,795	$1,929,197	$556,864	$85,865	Securities	$2,571,926	$78,851	$1,000,000	$1,493,075
		May 31, 1929	463,493	1,100,732	1,564,225	339,912	436,099	Securities	2,540,236	92,519	1,000,000	1,447,717
Massasoit Mfg. Co. Falls River, Mass.	Cotton	Dec. 31, 1929	211,144	623,465	834,609	1,024,431	15,990	Miscellaneous	1,875,030	545,925	500,000	829,105
		Dec. 31, 1928	305,453	522,074	827,527	1,014,984	13,145	Miscellaneous	1,855,656	516,507	500,000	839,149
Paul Whitin Mfg. Co. Northbridge, Mass.	Cotton	Dec. 31, 1929	292,856	1,029,641	1,322,497	1,169,654	361,865	Securities	2,854,016	313,077	1,200,000	1,340,939
		Dec. 31, 1928	344,978	824,767	1,169,745	1,195,914	549,953	Securities	2,915,612	235,878	1,200,000	1,479,734
Harmony Mills Cohoes, N. Y.	Cotton	Dec. 31, 1929	342,773	1,647,598	1,990,371	6,990,753	2,700	Securities	8,983,824	645,217	5,421,600	2,917,007
		Dec. 31, 1928	272,310	1,395,268	1,667,578	6,957,078	85,686	Miscellaneous	8,710,342	362,509	5,510,800	2,837,003
Hayward Woolen Co. East Douglas, Mass.	Wool	Dec. 31, 1929	558,730	308,642	867,372	582,518	136,882	Securities	1,586,772	215,851	600,000	860,921
		Dec. 31, 1928	561,767	267,188	828,955	782,461	102,321	Securities	1,731,737	63,803	600,000	1,049,934
Neponset Woolen Co. Canton, Mass.	Wool	May 31, 1930	103,144	251,563	354,707	152,615	2,457	Prepaid	509,779	75,537	300,000	134,242
		May 31, 1929	81,163	241,785	322,948	159,750	2,480	Insurance	485,178	48,119	300,000	137,059
Hamilton Woolen Co. Southbridge, Mass.	Wool	Nov. 30, 1929	1,173,794	1,300,809	2,474,603	696,367	18,938	Miscellaneous	3,189,908	332,025	1,938,750	919,133
		Nov. 30, 1928	1,472,722	1,280,781	2,753,503	3,313,406	21,951	Miscellaneous	6,088,860	1,509,235	1,292,500	3,287,125
Mass. Knitting Mills Jamaica Plain, Mass.	Knit	Dec. 31, 1929	292,986	65,927	358,913	214,179	23,563	Miscellaneous	596,655	265,690	320,000	10,965
		Dec. 31, 1928	240,430	66,890	307,320	170,322	1,257	Miscellaneous	478,899	203,101	275,000	798

ADDED DULL LUSTER FEATURES CHARDONIZE

This photograph shows a comparison of Chardonize made by the Opake Process with ordinary rayon. Note the dull luster of the Chardonize sample.

YOU can meet your hosiery and underwear fabric market with the clear, dull finish style demands, if you use Chardonize yarns for your newest numbers. Buyers want hosiery and underwear which gives a slim appearance. This is achieved by the dull finish of Chardonize, for Chardonize is smooth and even. It clings like powder and is devoid of shine. The dull beauty is permanent because of the exclusive, patented Opake process of manufacture by which Chardonize is made. This process causes the yarn to diffuse rather than reflect light. It eliminates all mirror-like surfaces. Thus the permanent, subdued beauty is assured . . . inherent and lasting, through many washings and wearings.

It will be to your advantage to use Chardonize yarn for your newest lines. We will gladly supply you with samples and full information concerning Chardonize. Write our New York office.

CHARDONIZE
(PRONOUNCED SHARDONEEZE)
A TUBIZE CHATILLON PRODUCT *Brand YARN*

TUBIZE CHATILLON CORPORATION . . TWO PARK AVE., NEW YORK
Manufacturers of Acetate, Nitro-Cellulose and Viscose Yarns of distinction

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Yarns Affected by Cotton Drop

Seasonal Buying Delayed By Raw Material Weakness

PHILADELPHIA.

UNEXPECTED and serious weakness in the raw material market the beginning of this week caused yarn buyers to withdraw and await developments. Conditions are no worse than in July, which was one of the least active months this year, but seasonally they should now have improved. This turn is not in evidence at present.

Basically the market is in a healthier condition than last month due to a number of factors which in the long run must make themselves felt. Cotton is reaching a level which is sure to be bottom, being at the low for ten years and within a short distance of being lower than for 15 years. Low cotton in the long run means larger consumption, to which principle the present cannot be an exception.

Spinners, learning the lesson of overproduction, are curtailing more drastically than before and production at present is little above consumption. There is more nearly a balance than in any previous dull period.

STOCK SITUATION BETTER

Stocks of yarns in spinners' hands are being kept within reasonable limits. Stocks in dealers' hands are being reduced to a small degree, one house reporting, for example, about 900 packages now compared with 2,000 the first of this year. This tendency among dealers is general but not so pronounced as this case.

These factors, which in the end will prevail over temporary influences, will quicken improvement in the sales yarn field. To make spinners and dealers believe this now is difficult, and pessimism is general, the trade being disappointed that the cotton market shook the price structure again just at a time when seasonal influence was about to bring more and larger buyers into the market.

Prices of weaving counts have withstood the assault more firmly than knitting, the reverse of previous reaction. Knitting dropped 1c. from last week, being held at 21c. basis 10s by same spinners who last week were firm at 22c. Carded weaving counts are ½c. lower.

LOWER COMBED PRICES?

Although prices on combed yarns were nominally keeping abreast of cotton, several smaller factors, it was reported early this week, had reduced quotations in an endeavor to stimulate sales. Whether larger spinners would follow this example was not apparent at the beginning of the week.

A similar condition prevails in mercerized, larger processors having a fair volume of business in hand but not receiving specifications. To correct this, smaller factors reduced prices, and one stated he would sell 60s-2 several cents under the nominal price list which places this count at 76c. It has been difficult if not impossible to sell at full list prices.

To off-set these depressing reports several dealers assert that a fair number of largest manufacturers in the country are now making inquiry for prices on yarn to be shipped during the remaining months of this year and the first quarter of next, feeling that present low prices will not be duplicated during the next year at least. No sales of this nature have been reported, spinners in all instances being unwilling to commit themselves this far ahead at current unprofitable prices. They can sell at a loss at any time, and are willing to take a chance on the future.

Manufacturers who have been out of the market, having high priced contracts, have taken most of this yarn and now are in a better frame of mind to purchase additional yarn. This in itself is a distinct improvement and the first time such reports have come from dealers.

Combed spinners announced an important reduction in prices of both two ply and single counts Wednesday, averaging two to three cents a pound. It is the first serious cut in these qualities, lower prices heretofore being result of lower cotton prices, spinners keeping combed yarns on same proportionate basis with the raw material market. The present reduction indicates that combed spinners have decided to go further to bring their products down to an attractive price basis and have narrowed spinning margins from the former basis.

●

NEW YORK—Carded yarn trading is light and has developed into a waiting proposition for spinners. The continued decline of raw cotton, plus a deep-rooted caution among manufacturers, serve to discourage anything more than sporadic buying. No real interest is shown at any end.

Price concessions fail to excite manufacturers to active coverage. There is much yarn available below list, but few takers. Manufacturers are dubious about raw cotton and even if they were convinced that prices at that end would not decline further, it doubtful whether they would buy more than their actual needs, as they continue uncertain regarding fall prospects for their own lines.

The larger spinning mills prefer to wait for a better market, rather than offer their yarns at the present unsatisfactory levels. Current orders are from the insulating group and the carpet trade. The expected demand from automobile upholstery fabric manufacturers has not developed as yet, but spinners look for some activity here soon. Inquiries continue coming in, and the manufacturers are more confident regarding fall outlook.

Worsted Yarns Sales Are Small

Buying for Fall Goods Awaited By Spinners

PHILADELPHIA.

WHILE there are several spots in the sales yarn market where improvement is found the situation as a whole presents little upon which to pin betterment in the spinning trade. Both weavers and knitters are buying little and withdrawing from the market so far as possible, their purchases being smaller than normal for this time of the year. Prices are nominally unchanged and fairly steady, but when sales are reported these show in most instances that need for business results in spinners accepting less.

Fair size sales of 30s warp, French spun, indicate this, sales of respectable size being reported at $1.35 for 30s, 64s warp, although this figure is 10c. under that quoted by a number of French system spinners. This count is held at $1.45 by the higher price spinners, but those naming the lower price state that the wool used in the $1.35 warp yarns is shorter than that used in the better grade; but to offset this all sales of this yarn reported have been at the $1.35 level and evidently all spun from the shorter staple.

DRESS GOODS YARNS IMPROVE

Improvement in demand, even to the extent noted, is important from spinners' standpoint, and they are optimistic, believing that dress goods in worsted lines will take considerable yarn from them this fall and winter. It is believed that general business conditions may make it imperative for many women who formerly purchased fur coats to change to worsted and woolen lines this fall and spinners hope this change may become apparent in sales.

In one or two instances prices have steadied within the last two weeks, one producer of English spun single knitting

$39.50

$29.50

Bemberg frocks

are decidedly cooler

You'll have to see these Bemberg frocks to realize how very cool they are. And do you know that Bemberg Chiffon Crepe . . . *is smartly dull . . . does not cling . . . under normal conditions, will not turn yellow . . . does not wrinkle . . . washes perfectly!*

The models shown come in white with navy, red, green or black dots and in the smart street and traveling combination—navy with white dots. Sizes for women and misses.

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Telephone VOLunteer 1000

"MADE OF BEMBERG" IS A STAMP OF QUALITY

N. Y. Sun June 10, 1930

If any store knows fabrics it is McCutcheon's

It is significant that for more than a year they have been selling dresses of crepe made of Bemberg without a comeback from their peculiarly discriminating clientele. The opportunity for producers of fine fabrics to capitalize on the recognized superiority of Bemberg is better now than ever—*new prices are opening new and larger markets for fabrics made of Bemberg.* Write for information.

AMERICAN BEMBERG CORPORATION, 180 MADISON AVENUE, NEW YORK

yarns having recently advanced prices from $1.22½ for 15s, 50s, dyed to $1.25. Spinners using South American wools also state they are paying higher prices and will soon have to pass this on to manufacturers. Yet there has been no change in price level of outerwear counts, English system spinners quoting from $1.02½ up to $1.07½ for 2-20s, 50s.

The higher-price factors claim that yarn being offered at the lower level is not a good 50s, while those naming the lower figure assert that the grade is a 50s. Spinners quoting this count at $1.07½ report little business at that figure, while those selling at $1.05 or less report a slightly larger amount but no large volume, showing that price is little incentive to large purchases at this time. Manufacturers are not in a mood to anticipate goods orders and will not cover all at a time with yarns.

Men's Wear Yarns Quiet

Men's wear manufacturers are running at a less active rate as they approach the beginning of the next season. Majority are finishing out odds and ends of the heavy-weight lines and as these are cleaned up they must stop looms until new business in the form of light-weight orders arrive. The fancy men's wear season will begin officially in September, but many mills have already shown new fabrics.

While the season will be as late as goods buyers can make it, the postponement must now be more restricted than when season began in July. Now buyers have four months and it would seem that buying should begin early in the fall if the season is to develop as predicted by those who look for a fair volume. Prices named by the largest goods manufacturer several weeks ago caused more conservatism among local manufacturers than was previously apparent, and it will take substantial new orders to offset this and bring them to a point where they will place yarn contracts.

Lack of buying by manufacturers of sweaters is one of the most disappointing features, this being time of year for this demand to develop.

◆Thrown Yarn Call Stresses Cantons

INCREASED demand among cutters and retailers for canton broadsilks has had a favorable effect on the movement of canton yarns, throwsters report. The past ten days has brought a flurry of orders for this thread, and the weavers appear to be gradually gaining confidence. Orders continue small, and there is a taboo on future commitments, but on the whole, the market tone at this end is better. It is likely that the call for canton yarns will hold steady and it may register a real pickup; broadsilk mill men find increasing consumer interest in canton fabrics—indeed, cantons are moving better than any other cloth in the fall lines. The call for canton yarn stresses quick shipment; throwsters have no difficulty in complying with that requirement, as stocks of yarn in mills are considerable; the trade is hopeful that the demand will continue long enough to eliminate the surplus.

Hosiery mills are only mildly interested. Some knitters who were skeptical about grenadine yarns now are turning to this twist and there are numerous inquiries for samples and information. Current grenadine yarn orders are light. Trams continue very slow. The hosiery trade is still doubtful about fall prospects, and knitters are averse to buying more yarn than necessary for immediate needs.

Spun Silk Backward

High-Pressure Buying at Last Minute Is Possible

THE expected fall demand for spun silk is decidedly backward, and indications are that when buying develops, it will come with a rush. Broadsilk mills are low in stocks of spun yarn and though they do not use as much of this thread in fall as in spring, they have not enough on hand even for fall requirements. Normally end-August brings a good spot call for 60s 2-ply and also a moderate future business for singles, but buying is behind in both divisions this year. Spinners are confident that business is on the upgrade and they look for improvement shortly. Manufacturers are making many inquiries and are gradually losing their feeling of hesitancy regarding the fall prospects.

Stocks Moderate

Spun yarn stocks on hand are moderate. Spinners have increased output slightly, in anticipation of a spirited last-minute demand, but there is no concerted tendency to produce for stock; the trade continues its policy of keeping production in line with buying, for the most part. Output schedules for fall are based largely on what was consumed in other years, the belief being that even though fall is starting slowly, late demand will make up for the slow start.

Woolen and worsted weavers are using substantial quantities of spun yarn in their new lines and some active buying is expected from this group, once their lines begin to move. Woolens and worsteds are still in the opening stage; numerous mills have not yet shown their lines. Spinners do not expect any real buying before the second week of September, but customers have assured them that the prospects for considerable business at that time are good.

Rayon Behind August, 1929

Some Producers Report Sales 50% Below Same Month Last Year

THE August let-up in rayon yarn sales is much more acute than in other years. A rough computation of figures by several leading producers indicates that August turnover, while ahead of the previous month, would be a little above half that of August, 1929. Current buying is light and hesitant, with some pressure on price, but no real interest at any end, even when concessions are offered. While there is a considerable amount of underselling reported, price is not the main issue in the present lull; consuming industries are still cautious about fall prospects, and they limit commitments to immediate needs.

Orders are about equally divided between weavers and knitters. The recent price cut has stimulated demand among cotton mills, and a fair quantity of yarn changing hands this week was bought by these firms. Knitters are buying small lots of 150s, and are increasing their call for 100s for underwear production. Weavers now are turning away from the cheap grades and are trading-up in their orders.

60-Day Rebate Plan

The demand for a price guarantee has become so strong that producers are considering the possibility of devising some plan to satisfy the consuming industries. There is much doubt regarding the stability of present prices, especially among knitters, and mill men are holding back on contracts, for fear that a price drop may follow. The discussion about a price guarantee is shaping into a suggestion that the trade promise a rebate of 60 days in case of any future decline. Producers recognize many difficulties surrounding such a project, and are hesitant to reach any decision. One possible advantage seen in the 60-day rebate plan is that it might make for increased stability by discouraging producers from announcing a new reduction. Naturally a pro-

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LAST SEASON'S fabrics may be dead next season. Yesterday's good idea may be thread-bare, tomorrow. Somebody must search, experiment, study, investigate, and provide new fabrics to keep step with new fashions. More than that, somebody must perfect the processes of producing these new fabrics.

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THE FATE OF A FABRIC HANGS BY A THREAD

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ducer would be more hesitant about announcing a cut, if he knew that he had to make it retroactive for two months.

However, the real issue is one of no buying demand. It is clear that, once retail turnover improved and mills found a quick market for their goods, necessitating early and good-sized shipments of rayon, prices would automatically firm themselves. Rayon producers do not look for any improvement prior to Labor Day, but are counting on September to bring a slight increase. Stocks in the rayon plants are moderate to small; production is still curtailed, and the rayon companies will not increase output until sales justify it.

There is a better tone at the inferior yarn end. Prices are firmer and there is less competition between standard and sub-standard yarns.

◆Cotton Wastes Continue Dull

BOSTON.

THE raw cotton situation continued to depress sentiment in the cotton waste market. Demand for all types of waste is very limited and consumers are confining their purchases to cover immediate needs. Buyers are withholding forward purchasing and will continue to do so until the situation in the cotton market shows some signs of stability. Dealers do not expect any active demand until the next Government crop report is published in the early part of September.

Prices on spinnable wastes have moved downward, choice peeler comber being quoted at 9 to 10c. The supply of Egyptian comber is relatively small and prices are firm at around 9c. Good peeler strips are held around 9c. and choice Upland strips at 8c., although fairly good Uppers are available at 7c. Threads for machining are quiet and while prices are quotably unchanged from a week ago there is more of a disposition to grant concessions. Picker and fly continue quiet and unchanged in price.

◆Rayon Waste Shows Improvement

RAYON waste demand continues to show a slight improvement. Garnetters are inquiring, preparatory to September buying, and there is a fair amount of spot business. Current buying is in small lots, but dealers are encouraged by the steady undertone, and look for continued gain in confidence. Thread waste is moving moderately well; New England garnetters are buying small lots; the upstate (New York) group is still hesitant about fall coverage. Open waste continues quiet.

A number of mills, not hitherto users of rayon waste, have begun buying, and this is taken as a sign of confidence at the consuming end. Waste dealers are satisfied with the outlook. There is no great surplus of waste on hand, and a few weeks of normal buying would be sufficient to develop a seller's market, it is contended. Prices are still low, and there is little profit for dealers at current levels. The trade is looking to September to bring a confidence which would stimulate buying to the point where an upward revision in prices might be justified.

Cotton Futures Lowest Since '21

Partial Drouth Relief and Increasing Receipts Stimulate Sales

THE selling movement which began following the publication of the Government crop report Aug. 8, when cotton was selling around the 13c. level, continued with nothing more than technical rallies until the price of new October contracts broke to 10.69 on last Tuesday. This represented the lowest price which has been touched in the cotton market here since July contracts sold at 10.45 in June, 1921, and represented a decline of 247 points, nearly 2½c. per lb., as compared with the high price touched on the rally which preceded the Government crop report early in the month.

The selling movement was promoted by reports of increasing new crop receipts in the South with a corresponding increase in the hedging, continued unfavorable trade reports, and the belief that the area suffering from drouth in the central and western belts was being gradually cut down by showers or light rains at scattering points. The improved technical position of the market, however, seemed to be asserting itself below the 11c. level for the fall and winter months; while it may be that these prices were attracting an increasing volume of scale-down buying on speculative account. At any rate, the market became rather more two-sided during the middle of the week, with prices showing recoveries of ½c. or more from the lowest.

Naturally enough with prices below 11c. for early fall and winter deliveries on new contract, attention has been directed to the low prices reached during previous years since the World War; and these comparisons may have promoted a tendency to go a little more slowly on the selling side, if not to take an aggressively bullish position on the market. In the big-crop season of 1926-27, the lowest price touched was 11.55 for January contracts in December, 1926. At that time, however, the general index of wholesale prices as compiled by the Bureau of Labor Statistics, based on the average for 1926, was 97.9; whereas the index for July this year was 84.0. It would seem, consequently, that while the low price of 10.69 for October reached here during the week was lower than any price touched in the big crop year, it was relatively higher in relation to the general level of commodity values. Nevertheless, the supply of cotton available for next season as indicated by the last Government crop estimate was about 3,000,000 bales less than the amount available in 1926-27; and while trade then was decidedly on the upturn compared with prevailing depression, it is entirely likely that this season's low prices will have a stimulating effect on consumption in the long run.

In the meantime, however, the trade is more or less uncertain as to the absorption of hedges against the gradually increasing movement of new-crop cotton even at the prevailing lower level of prices. It is supposed that maturity has been hastened in many of the earlier sections of the belt by recent hot weather, and that the movement will increase more rapidly than usual. Receipts at Houston have been running quite heavy for this time of the year, apparently foreshadowng something of this sort, although ginnings prior to Aug. 1 were smaller than those of last year.

The cooperative organizations are understood to be advancing growers about 75% of the market value on cotton turned over to them, and it is reported that in Alabama they have been lending 9c. a pound. In the present market, therefore it would seem likely that they would get a considerable amount of the early cotton, and it is understood that they are making a push for increased membership. The actual cotton taken by them in their seasonal pools for members, it is supposed, will be marketed gradually; this will take its weight off the immediate spot markets, but if hedges are sold against it, it will obviously have to be dealt with in futures.

There is, also, considerable uncertainty as to the probable showing of the next Government crop report, which is scheduled for publication on Sept. 8. The drouth situation, as already noted, has been improved by showers or rains in some points; but more general rains are still needed, particularly in the Southwest. If they are had before the end of this week, the trade will probably prepare for an increase in the Government crop estimate; but if not many will be inclined to look for some scaling down of the figure. The last weekly report of the Weather Bureau

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read rather more unfavorably as to conditions in Texas than was anticipated, but Wednesday's weather details showed a good deal of rain in Oklahoma which may work down into the Panhandle.

•

MEMPHIS, TENN., Aug. 18.—The week in the cotton market here was a very unsatisfactory one. A few small-lot orders, mostly at flat prices, for immediate or nearby shipment, were received. Forward business was almost nil. Activity expected after the Government's first crop estimate of the season was precluded by the report itself and the downward movement of prices which followed the report.

Inquiry has dropped off sharply, mills apparently having taken the position that the crop indication and unsatisfactory conditions at the consuming end of the industry warrant a waiting attitude. A further restricting influence is the fact that merchants are afraid of the basis and are themselves distrustful of prices because they doubt the ability of the market to absorb their hedges when the movement becomes heavy. An unusually early movement is expected because of rapid maturity and premature opening usual to drouth crops. Some argue that contract values are near levels which do not call for hedging and, with any further important declines, the weight of the movement may not be severely felt.

Most of the demand during the week was for $1\frac{1}{8}$ in. to $1\frac{3}{32}$ in. cottons, of which the supply is limited. Staples were neglected. Bases on short cottons were reduced about 25 points; bases on $1\frac{1}{8}$ in. staples was reduced about 75 points and strict middling is now officially quoted at 150 on the new October contract; quotations on $1\frac{5}{16}$ in. and $1\frac{1}{4}$ in. were unchanged with strict middling at 350 and 850 on for $1\frac{5}{16}$ in. and $1\frac{1}{4}$ in. respectively. Total stocks here are extremely large for the season, but are in the hands of a very few. Most merchants are entering the new season empty-handed, or comparatively so, both as to orders and stocks; until they feel more confident of the market's ability to absorb hedges promptly, they are not likely to buy freely for stock.

Drought is being broken in spots; numerous localities have received generous rains, and with some possible benefit; generally speaking, drought over the northern two-thirds of the belt from Alabama westward through Texas and Oklahoma has not been effectually relieved. The delta in Mississippi and eastern portions of Arkansas are still suffering severely.

Wool Trading Slackens

Fair Movement Preceded Present Return of Dullness

BOSTON.

TURNOVER of wool on Summer Street has slackened again after a spurt lasting about ten days. This feature, however, has been characteristic of the trade in wool this season and it is not causing much concern among the dealers. The larger manufacturers apparently met with a fair response to their new lines of staples, and covered their wool requirements. Further purchasing in a large way by the bigger companies is generally conceded by members of the wool trade to depend upon renewed interest on the part of the goods market. A number of the keenest observers in the wool trade seem to be agreed that the next major movement of wool is not likely to come until new fancy lines are offered after the first of September. Bulk of current wool sales consists of moderate quantities purchased for piecing-out stocks or to cover straggling goods orders.

Reports of extreme drouth conditions over a large area of the country appear to be having an adverse effect upon the goods market. Nevertheless, there is a fairly broad inquiry from mills for the finer grades of domestic wools. This serves to give the market a firm undertone.

Another encouraging feature in the raw wool situation is that mills are promptly taking up the wools they have purchased. This is taken as an indication of the healthy condition of stocks in the hands of mills, and it is believed that the closeness of mill stocks to the "bare boards" means that any increase in demand for goods will be promptly reflected in the wool market.

Fleece wools have recently been more active and prices have shown a tendency to harden. There has been a fair movement on Ohio $\frac{3}{8}$ blood combing wool. Sales of this grade have been closed at 30c., in the grease, and it is becoming increasingly difficult to buy any of the standard lines at any lower figure. In some cases, wool concerns have sold about the limit they will let go at 30c.

Ohio $\frac{1}{2}$ blood combing is showing a fair strength. Sales are being closed freely at 30c. and some houses are asking a higher figure for remaining supplies of this grade. Ohio delaine continues fairly active and apparently a bit stronger. The asking price of 31c. is generally firm and a premium of $\frac{1}{2}$c. has been realized on a few lines. Quarter-blood fleeces are rather quiet at the moment, but this is not surprising when it is considered that several wool houses are still grading and delivering on orders taken several weeks ago. Prices are generally firm at 30 to 31c. Clothing wools of $\frac{1}{2}$ and $\frac{3}{8}$ blood fleeces are salable at 26 to 27c., depending upon shrinkage. One feature of interest in the fleece wool situation is the fact that no grade or class has tended to accumulate during the season. Clearance has been fairly even on all lines.

Twelve months Texas wool has been meeting with favor on the part of recent buyers. Sales have been readily closed at prices that figure 73 to 75c. on a scoured basis, and an occasional seller estimates the price slightly higher than the outside figure of this range. Demand has been dropping off a little on original bag territory and other western grown wools, but prices remain firm on lines consisting of chiefly fine and fine-medium wools at 70 to 72c., scoured basis. Montana and Wyoming offerings bring 72 to 73c., in the original bags, and graded lines with the clothing wools taken out bring up to 75c., scoured basis. A moderate quantity of graded fine French combing and $\frac{1}{2}$ blood combing territory is moving, but the lower grades are rather quiet.

The market on the types of wool required by the woolen mills is not very satisfactory. Buyers have been scarce and the drouth reports are having a greater effect upon this branch of the wool trade than upon houses catering to needs of worsted manufacturers. It is feared that the destruction by dry weather of pasture and feed crops is going to increase the kill of sheep and lambs to such an extent that supplies of pulled wools will become topheavy and depress not only the prices of pulled sorts but bear down on the prices of scoured shorn wools as well. B lambs' wools are selling only a little over 50c. now for the choice white wools and stained lines are available at 45 to 48c. There has been a fair movement of lambs' wool, but the other lines of pulled wools have been quiet with quotations nominally steady but holders none too easy over the outlook.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Aug. 16, based upon data compiled by the Market News Service of the Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Aug. 16	Totals to Date 1930	Totals to Date 1929
Domestic	3,200,000	307,020,000	153,628,000
Foreign	554,000	48,550,000	76,189,000
Totals	3,754,000	355,570,000	229,817,000
IMPORTS AT PRINCIPAL PORTS			
Boston	554,000	48,550,000	76,189,000
Philadelphia	739,000	32,506,000	55,028,000
New York	1,039,000	30,216,000	50,950,000
Totals	2,332,000	111,272,000	182,167 000

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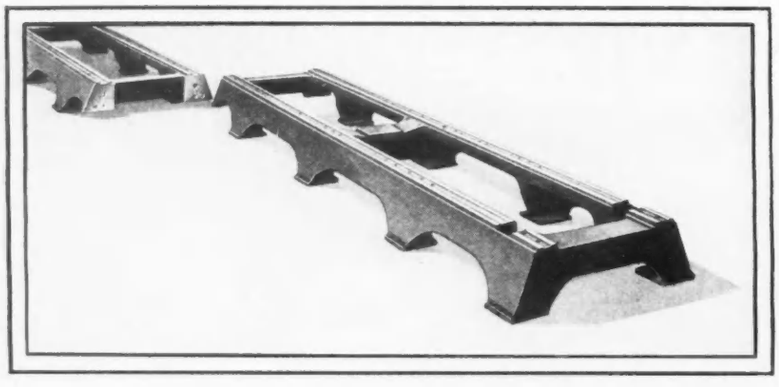

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Dull Week in Raw Silk

Exchange Has Two "No-Sale" Days—Prices Are Uncertain

RAW silk is uncertain, at the end of an unusually dull week, even for mid-summer. Uptown importers in the New York market did some business, but at below-list prices. Neither weavers or knitters showed any confidence in buying, though the weavers were inquiring actively. Broadsilk mills bought small lots for spot shipment. These companies still hold the suspicion that silk may drop again, and refuse to contract for more than immediate needs. Actually, buying by broadsilk firms is disproportionate to reports of fabric sales. Raw silk importers find much resistance to list prices and some of the larger units refuse to sell, rather than make the concessions demanded.

Yokohama Firms Up

The gain of 1 to 3c. shown in Silk Exchange trading was due to a firmer tone at Yokohama; this price advance brought little encouragement, as Exchange trading was indifferent. The Exchange indeed past one of its quietest weeks; on two days, Aug. 15 and Aug. 18, no sales were recorded. Importers now are less confident regarding the fall prospects; they look to the second half to mark a slow improvement in tone, but the real pick-up, they believe will not develop before the end of the year. The second half is usually a subordinate period, from point of sales, and the continued hesitancy of all consuming industries is expected to prevent any quick strengthening. Broadsilk mills should be compelled to buy, at least moderately, in September, and from then on silk may make some gains; the rise probably will be slight and each upward move will be resisted.

August raw silk arrivals are heavy and will exceed 60,000 bales. Importers estimate that the month's consumption will not exceed 50,000, which would increase the carry-over by more than 10,000 bales.

Hosiery Output Increases

Greater Production Raises Danger of Surplus Again

THE growing confidence of hosiery producers in fall prospects, which has shown itself in the plans of various mills to produce for stock, is only partially justified by the sales and price situation. While intelligent opinion is agreed that September should mark a general improvement, there is danger of over-optimism among knitters. The well-known weakness of hosiery mills to increase output as soon as sales take an upward curve, may again spoil a promising market, unless the policy of increasing production is tempered by caution. The curtailment of the summer months has helped considerably to rid the market of clearance goods, and prices, while still far from steady, are less cut-throat than they were.

Spot Buying Prevails

Women's full-fashioned is still on a strictly spot basis. There is considerable turnover, but at a close profit margin. Retailers and jobbers gradually grow more confident regarding fall prospects and the inquiries being received by the mills indicate that the end of the month should bring increased demand for fall shades. Grenadines are fair.

The outlook on the whole is considerably better, and knitters are justified in increasing output, provided this is done on a conservative basis. Half-hose demand is mostly at the popular-price end. Cotton-and-rayon fancies, made to retail at 25c. are in good call. There is less interest in the higher-priced lines; mill men complain of indifference regarding the 35c. and 50c. goods. Half-hose prices are firmer. The clearance merchandise which weakened the market in late spring has been partially assimilated, and buyers are putting up less resistance to quoted figures. In the sport range, boys' golf hose are in fair demand, especially the numbers retailing at 25 to 50c.

◆Winter Underwear in Active Call

HEAVYWEIGHT underwear is moving actively, mostly for nearby shipment. Mills are selling at first delivery prices, as a rule, but the market is uncertain. One big producer now officially sells on first delivery basis; others are selling at this level sub rosa. Retailers do not look for further reductions and now are obliged to buy quickly for fall. The policy of putting-off buying, which caused the knitters much worry early in the season, now promises to bring the customers into difficulty. Mills are selling at the capacity of output in may instances, and numerous important distributors have not yet covered adequately for October needs.

It is easy to cry "shortage," and the consuming trade has been trained to smile skeptically when that cry is raised; however, it seems to have more justification than usual this year. Mills curtailed decidedly, when the late spring and early summer failed to bring normal orders, and now the stocks are dwindling so fast that a shortage, at least in the popular models, seems possible. So far, there has been no difficulty in shipments and no difficulty at this end is anticipated for some weeks. Continued postponement of buying, however, will simply accentuate the possibility of a crowded situation when the heavyweight season actually arrives.

Spring lightweights have not yet opened, and knitters are disposed to defer showing these lines because of uncertainty regarding new prices. Some producers of balbriggans expect to show their 1931 merchandise the first week of September, but it is probable that numerous important mills will have their lines available a week earlier. Demand for rayon underwear shows its normal let-up; some reorders are received but demand as a whole is tapering off.

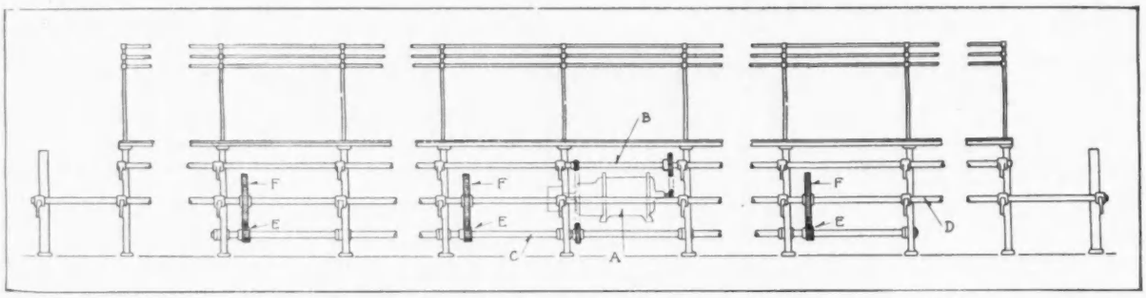
1931 Bathing-Suit Openings

Some Lines Shown, But Many Mills Defer Displays

THE 1931 bathing-suit lines are opening slowly, and a considerable part of the trade had new models on display up to the time of going to press. The trade was far from unanimous on observing Aug. 15 as the opening date, however; numerous mills are still busy on plans for their showings, and some are not expected to open their lines before Labor Day.

Many of the mills which opened early announced price reductions, running from 8 to 10%, below last year's figures. The knitters usually are pricing their lines in conformity with prevailing yarn quotations which are considerably below last year. Buyers are showing surprising interest, considering that all lines have not yet opened, and a fair quantity of early orders have been placed. Some are buying for the Florida and California winter resort trade, but there is also a fair amount of early spring business. Naturally

A TYPICAL READING IMPROVEMENT



The above diagram shows the three-point gearing arrangement of the new Reading Central Drive. A = motor; B = handwheel shaft; C = torsion-taking driveshaft; D = cam shaft; E and F = pinion gears from intermediate shaft to cam shaft.

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enough, all orders are small and of the feeler type, but the early response has encouraged knitters to look for a good season.

Women's Fancies Favored

Buyer interest at present leans to the regular speed model for men, which has changed little since last season. Low-priced fancies for women also are important. However, the trade looks for a greater demand among women for the mannish suits; the navies and blacks, cut to women's models, are expected to be an important feature of the coming season. Pastels are winning some attention. It is too early to get buyer reaction to the stress that manufacturers have put on appliques in the new lines; this range of women's lines includes a wide variety of dashing color effects; contrasting high shades dominate. Buyers of popular-priced lines, both men's and women's, lean more to one-piece models, while the two-piece suits continue important in the higher price ranges.

See Good October

Mill men are satisfied with the response to date, but do not look for any real buying for three to four weeks. It will be several weeks yet before all lines have been opened, and buyers will need an additional week to get their measure of the trade showings as a whole. Reasonably firm buying is expected for October. The reports being heard of a substantial carry-over in store stocks are not taken seriously by the trade. Indeed, the statements of representative retailers are to the effect that bathing-suit turnover was very satisfactory and that the carry-over is small.

Medium-weight sweaters have registered a healthy improvement, some mills report. The demand is unevenly divided, but the trade is optimistic regarding prospects. Staple sweaters continue a slow pick-up, though sales are still behind.

◆Cotton Goods Demand Light

THE decision of the cotton mills to continue their curtailment of print cloth and sheeting output, is the feature of the week in cotton goods. Demand at this end has been light for some time, and a surplus has accumulated. Mill men are convinced that no sudden pick-up need be looked for, and they will not increase production until demand shows a steady rise.

There is a moderate call for sheetings and print cloths; spot buying prevails, mostly small lots, but with a few fair-sized contracts.

Sales of gray goods and colored goods are better than might be expected, considering the weakness of cotton. In some cases, sales are effected by drastic price-cutting, but the larger houses are offering resistence. Certain mills have made concessions on November-December business, and even on first-quarter orders, which has caused some concern, but these cases are exceptions. There is no real future interest at present prices, either among buyers or sellers.

◆Better Tone in Wool Goods

THERE is a better tone in the wool goods markets, though sales do not show much improvement. Garment manufacturers complain that their lines for fall are not moving, and they will not buy any more cloth than they need for immediate use. Cutters are interested in popular-priced lines, especially tricots; and crepe broadcloth is in moderate demand. Fall sales of fabrics are still far below normal, and no big pick-up is looked for before the end of the month. A cool spell is awaited to spur interest in ready-to-wear; weavers expect the current hesitancy to continue until garment manufacturers are able to move their lines. Stocks in the hands of cutters are small.

Worsted dress fabrics have improved; there is light but steady buying of medium and low-priced lines. Prices are uncertain. Considerable underselling is reported among the smaller mills, with the larger companies still holding to opening prices. Confidence regarding fall outlook gains slowly, and there appears to be justification for the belief that September will be active.

◆Broadsilk Call Slackens

DEMAND for broadsilks has eased off slightly at all ends, and there is a sharp pressure by buyers for price reductions. Mill men find much difficulty in getting list figures for even the most popular of the fall fabrics. Turnover is decidedly behind this time last year, and though the weavers still hold to the hope that the second half will mark an upturn, sales to date give little support to this theory. Current buying centers on cantons, with buyers indifferent regarding such mid-winter fabrics as metallics and satins.

Cutters are still interested in cantons, as a major fall cloth but all orders are small and for nearby shipment. There is no real confidence in the garment trade, these manufacturers reporting that their retail outlets are equally slow in stocking up for fall.

Mill Position Satisfactory

Broadsilk mills are producing cautiously, this being especially true of the larger companies. There is a concerted effort to keep inventories down, with the result that there are no big stocks on hand. One sales manager, discussing that point this week, said his firm's stocks were so close to current sales that two months of spirited buying, might develop a seller's market. The mill in question is one of the largest broadsilk units in the country, and the executive's statement therefore has some significance. However, mill men as a whole do not look for any surprising gains between now and December; they will be satisfied with a slow pick-up.

Better Demand Halts Burlap Decline

A slight increase in activity in the primary market served to check the decline in Calcutta burlap prices this week. The weakness which had prevailed for a time gave way to a firmer trend on Wednesday. Operators continued hesitant, however; the bulk of buying was spot.

The 8 oz. 40s for spot, two weeks and August shipment were at 4.70. The 10½ oz. 40s. for spot, two weeks and August shipment were at 6.10.

Army Buying Textile Materials

Bids will be received by the Depot Quartermaster, U. S. Army, Philadelphia, Aug. 26, 1930 to furnish them with 2,500 yd., blue and orange cord edge braid. The depot will open bids the same day to supply them with 1,300 pr., black mercerized stockings, size 11½, conforming with specifications 6-14A. On Aug. 28 they will receive proposals to supply them with 8,531 yd., huck toweling, 24 in. wide and 9,453 yd., 20 in. wide.

Aug. 18 bids were received to supply 5.000 yd., olive drab serge, 16 oz., 56 to 58 in. wide and the following prices were submitted by leading worsted manufacturers: Brighton Worsted Mills, $2.49, net; William Whitman Co., $2.29, net; Hampton Looms, $2.38, less 1% 10 days; Gera Mills, $2.45, net; Merrimac Mfg. Co., $2.34, less 1% 10 days; Amoskeag Mfg. Co., $2.325, less ⅓% 10 days; Princeton Worsted Mills, $2.44, net; American Woolen Co., $2.29, net; Botany Worsted Mills, $2.415, net; Cleveland Worsted Mills, $2.25, net; Selden Worsted Mills, $2.34, net. Low bidder was Cleveland Worsted Mills, $2.25.

Cotton Exchange Sets Limits Of Interest in Months

The board of managers of the New York Cotton Exchange on Aug. 14 unanimously adopted the following resolution: "Resolved that the board of managers prescribe as the maximum limit of interest on future contracts for delivery in any one month by any member. firm or corporation, and his or its affiliations: 150,000 bales in August, 1930; 250,000 bales in September, 1930; 1.000,000 bales in October, 1930, and in all months up to and including July, 1931."

QUOTATIONS

at close of business, Aug. 20, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	Aug. 20	Aug. 13	Aug. 21 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60	4c.	4 c.	5½c.
38½-in., 64x60, 5.35	5 5½c.	5 5⅛c.	7½c.
39 -in., 68x72, 4.75	5½c.	5¼c.	8⅛c.
39 -in., 72x76, 4.25	6¼–6½c.	6¼–6½c.	9½c.
39 -in., 80x80, 4.00	7¼c.	7¼c.	10⅜c.
BROWN SHEETING			
36-in., 56x60, 4.00	6⅜–6⅝c.	6⅜–6½c.	8⅛c.
36-in., 48x48, 3.00	7¼c.	7¼c.	10⅜c.
37-in., 48x48, 4.00	6c.	6 c.	8⅛c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	6½–6½c.	6½–6½c.	9 c.
36½-in., 64x60, 5.75	5½c.	5½c.	7½c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	8½c.	8½c.	10⅝c
Denims, 2.20	12½c.	12½c	17c.
Tickings, 8 oz.	17½–17½c.	17½–17½c.	22–23½c
Standard prints	8 c.	8 c.	9½c.
Eastern staple ginghams, 27-in.	10c.	10c	10½c.

Cotton Waste

Peeler comber	9 —10
Peeler strips	8½ — 9
Sak. comber	9 — 9½
Choice willowed fly	4½ — 5½
Choice willowed picker	3 4½
Sak. strips	11 — 12
Linters (mill run)	3 — 3½
White spooler (single)	8 — 8½

Cotton Yarn

(Carded yarn quotations are nominal)

CARDED (Average Quality)

Double Carded 2c.–4c. higher, according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.20½	20s	$0.23
10s	.21 – .21½	24s	.25½ – .26
12s	.21½ – .22	26s	.26½ – .27
14s	.22 – .22½	30s	– .28
16s	.22½ – .23	40s ex.qual	.40 – .41

TWO-PLY SKEINS AND TUBES

8s-2	$0.21 – .21½	26s-2	$0.27
10s-2	.21½ – .22	30s-2	– .28
12s-2	.22 – .22½	36s-2	.34 – .35
14s-2	– .22½	40s-2	.36 – .37
16s-2	– .23	40s-2 hi blk	.40 – .41
20s-2	.23 – .23½	50s-2	– .45
24s-2	– .26	60s-2	.53 – .54

SINGLE WARP

10s	$0.21½	24s	$0.25½ – .26
12s	.21½ – .22	26s	.26½ – .27
14s	.22 – .22½	30s	.27½ – .28
16s	– .22½	40s ex.qual.	– .41
20s	.23 – .23½		

TWO-PLY WARPS

8s-2	$0.21½	24s-2	$0.26½
10s-2	– .22	26s-2	– .27½
12s-2	– .22½	30s-2	.28 – .28½
14s-2	.22½ – .23	40s-2 ordin.	.36½ – .37
16s-2	– .23	50s-2	– .46
20s-2	.23 – .23½	60s-2	– .54

8s-3 and 4-ply skeins and tubes; tinged, 19-20; white, 22-23; waste 17½-18

HOSIERY CONES (Frame Spun)

8s	$0.20½ – .21	22s	$0.25 – .25½
10s	– .21	24s	.26 – .26½
12s	– .21½	26s	.27 – .27½
14s	– .22	30s tying	.28 – .28½
16s	– .22½	30s reg	.29 – .29½
18s	– .23	30s ex.qual.	.31½ – .32
20s	– .23½	40s	.36 – .36½

COMBED PEELER—(Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.36 – .37	60s-2	$0.56 – .56½
30s-2	.41 – .42	70s-2	.65½ – .66
36s-2	.42 – .43	80s-2	.78 – .79
40s-2	.44 – .45	90s-2	.98 – 1.00
50s-2	.49 – .50	100s-2	1.20 – 1.25

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.37 – .38	60s-2	$0.57 – .58½
30s-2	.42 – .43	70s-2	.66 – .67
36s-2	.43 – .44	80s-2	.78 – .80
40s-2	.45 – .46	90s-2	1.05 – 1.10
50s-2	.50 – .51	100s-2	1.20 – 1.25

SINGLES

12s	$0.29½ – .30½	30s	$0.39½ – .40
14s	.30 – .30½	38s	.43 – .43½
16s	.30½ – .31	40s	.43 – .43½
18s	.31 – .31½	50s	.48 – .48½
20s	.32 – .32½	60s	.55 – .55½
24s	.34½ – .35	70s	.64 – .65
28s	.37½ – .38	80s	.77 – .78

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.52 – .53	90s-2	$1.31 – 1.33
30s-2	.54 – .55	100s-2	1.61 – 1.63
36s-2	.57 – .58	120s-2	2.01 – 2.04
40s-2	.60 – .61	30s	– .75
45s-2	.62 – .64	40s	– .80
50s-2	.64 – .66	50s	– .85
60s-2	.72 – .74	60s	– .90
70s-2	.84 – .86	70s	–1.05
80s-2	.96 – 1.01	80s	–1.25

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed Aug. 7	—For Week— High	Low	Closed Aug. 13	Net Change
August	11.90	11.75	10.95	11.06	—0.84
September	12.04	11.89	10.88	11.20	—0.84
October	12.18	12.27	10.92	11.34	—0.84
November	12.25	12.10	11.08	11.39	—0.86
December	12.31	12.40	11.11	11.45	—0.86
January	12.38	12.48	11.28	11.59	—0.79
February	12.28	12.15	11.15	11.42	—0.86
March	12.38	12.20	11.13	11.52	—0.86
April	12.46	12.34	11.32	11.57	—0.89
May	12.55	12.66	11.32	11.68	—0.87
June	12.59	12.47	11.50	11.74	—0.85
July	12.64	12.69	11.56	11.87	—0.77

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, Aug. 15	11.90	11.42	6.89
Saturday, Aug. 16	11.60	11.12	6.80
Monday, Aug. 18	11.00	10.56	6.52
Tuesday, Aug. 19	11.25	10.70	6.49
Wednesday, Aug. 20	11.35	10.84	.....
Thursday, Aug. 21	11.15	10.73	6.49

SPOT FLUCTUATIONS AND STOCKS

Markets	Aug. 13	Aug. 20	Sales	Stocks This Week	Stocks Last Year
Galveston	11.85	11.05	2,840	189,063	69,507
New Orleans	11.74	10.84	6,866	303,822	41,282
Mobile	11.15	10.35	199	8,390	7,897
Savannah	11.18	10.37	10,121	111,890	24,023
Norfolk	12.06	11.19	651	44,854	20,655
New York	12.20	11.35	.....	237,888	.....
Augusta	11.69	10.31	1,423	48,651	30,169
Memphis	11.20	10.05	3,757	135,995	39,688
St Louis	11.25	10.25	.....	3,763	7,136
Houston	11.85	10.95	61,456	546,026	131,865
Dallas	11.20	10.30	40,065	.....	.....

BASIS MIDDLING

	Saturday, August 16	Saturday, August 9
10 markets average	10.78	11.90
Memphis	10.35	11.60

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	12.60 –12.85c.
1 3/16-in	14.60 –14.85c.
1¼-in	19.50 –20.00c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	2,738	2,217	1,888
F.o.b. included in total	2,714	2,037	1,868
10 markets	81,866	32,851	17,185

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	1,144	1,357	965
Gross receipts	5,790	6,044	5,580
Total since Aug. 1, net	2,115	2,049	1,934
Shipments	11,020	7,229	9,863
Total since Aug. 1	22,897	20,596	27,423
Total stock	138,020	40,825	67,182
Decrease for week	5,230	1,185	4,283
Unsold stock in hands of Memphis factors	28,204	4,050	.....
Increase for week	1,019	*83	.....

*Decrease.

AVERAGE PRICE AUG.-SEPT. SHIPMENT HARD WESTERN COTTON

F. o. b. New England

	Middling	St. Middling
1 in	14 –14½c.	14½–14¾c.
1⅛ in	14¾–15 c.	15½–16 c.
1 in	16½–16¾c.	17½–17¾c.
1⅛ in	23 –24 c.	25 –26 c.

Basis on New York, New December, 11.24.

DIFFERENCES ON AND OFF MIDDLING WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	1.05†	1.00†	1.00†	1.00†	.86†
S. G. M	.90†	.85†	.90†	.88†	.70†
G. M	.75†	.75†	.75†	.75†	.52†
S. M	.50†	.50†	.50†	.50†	.33†
S. L. M	.75*	.65*	.65*	.75*	.71*
L. M	1.75*	1.75*	1.50*	2.00*	1.73*
S. G. O.**	3.00*	2.75*	2.50*	3.25*	2.88*
G. O	3.00*	2.75*	2.50*	3.25*	3.90*
YELLOW TINGED					
G. M	.50*	.25*	.50*	.50*	.58*
S. M	1.00*	.75*	1.00*	1.00*	1.05*
M.**	1.75*	1.25*	1.50*	1.50*	1.68*
S. L. M	2.50*	1.75*	2.25*	2.25*	2.40*
L. M.**	3.50*	2.25*	3.00*	3.00*	3.30*
YELLOW STAINED					
G. M	1.50*	1.75*	1.50*	1.50*	1.58*
S. M.**	2.25*	2.50*	2.50*	2.50*	2.40*
M.**	3.00*	3.00*	3.50*	3.50*	3.23
BLUE STAINED					
M. G.**	1.75*	1.50*	1.75*	1.75*	1.78*
S. M.**	2.25*	2.25*	2.75*	2.75*	2.50*
M.**	3.00*	2.75*	3.75*	3.75*	3.28*

**Grades not deliverable on contract. †On Middling
*Off Middling.

EGYPTIAN COTTON

Alexandria Exchange, Aug. 20		Change
November Sak	20.15	—2.10
October uppers	13.13	—1.08

AUG.-SEPT. SHIPMENT c. i. f. BOSTON

(Tariff not included)	(Prices Nominal)
Fully good fair Sak	25.50
Fully good fair to good Uppers	16.75

(By Anderson, Clayton & Co.)

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

Fine delne..	$0.31 –$0.31½	¾ blood.....	$0.29 –$0.30
Fine clthg..	.23 – .24	½ blood.....	.30 – .31
¼ blood.....	.29 – .30		

TEXAS AND CALIFORNIA
(CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

A-A.....	$0.77 –$0.80	B-Super...	$0.55 –$0.60
A-Super....	.65 – .68	C-Super...	.51 – .55

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

Staple fine	$0.75 –$0.78
Staple ½ bld.	.70 – .73
Fine and fine medium	.70 – .72
¾ blood	.60 – .63
½ blood	.57 – .60

MOHAIR—DOMESTIC

Best Carding	$0.38 –$0.40
Best combing	.53 – .55

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.28 –$0.30
Cape firsts	.28 – .30

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 –$0.70
64s	.53 – .55
58s-60s	.46 – .48

(IN GREASE)

Montevideo:	
58-60s	$0.25 –$0.26
56s	.25 – .26
50s	.23 – .24
Buenos Aires:	
4s, 40-44s	$0.22 –$0.23
5s, 36-40s	.20 – .21

FOREIGN CARPET (GREASE BASIS IN BOND)
SCOURED

Aleppo	$0.30 –$0.31
China: Combing No. 1	.16 – .17
China Filling Fleece	.14 – .15
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.20 – .21
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – .29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s, 36s	$0.92½–$0.95
2-24s, 40s	1.02½– 1.05
2-26s, 44s	1.10 – 1.12½
2-28s, 46s	1.15 – 1.17½
2-30s, 48s	1.20 – 1.22½
2-32s, 50s	1.25 – 1.27½

(Single yarns 5c. less than above)

2-36s, 58s	$1.35 –$1.40
2-40s, 60s	1.45 – 1.47½
2-40s, 64s	1.50 – 1.52½
2-50s, 66s	1.65 – 1.70
2-60s, 70s	2.15 – 2.20

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.95
2-20s, 48s in oil	1.02½
2-20s, 50s in oil	$1.05 – 1.07½
2-20s, 56s in oil	1.15 – 1.17½
2-20s, 60s in oil	1.30 – 1.32½
2-20s, 64s in oil	1.37½ 1.40
1-15s, 46s dyed	1.15 – 1.17½
1-15s, 48s dyed	1.17½– 1.20
1-15s, 50s dyed	1.20 – 1.22½

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.20 –$1.22½
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.52½– 1.55
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.40 – 1.42½
1-30s, 64s, Warp	1.42½– 1.45
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.60 – 1.65
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	1.95 – 2.00
2-60s, 70s	2.10 – 2.15

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 –$1.07½
1-40s, 50-50-60s on cops	1.20 – 1.25
1-40s, 50-50-64s on cops	1.22½– 1.25
1-40s, 50-50-64s Australian cops	1.30 – 1.35

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.97 –$0.99
Half-blood (60-62s)	.88 – .92
High ¾ blood (58s)	.83 – .85
Aver. ¾ blood (56s)	.80 – .83
Low ¾ blood	.73 – .78
High ½ blood (50s)	.70 – .72
46s S. A. and N. Z.	.65 – .66
44s S. A and N. Z.	.62 – .65
40s S. A and N. Z.	.58 – .60

TOPS—BRADFORD, ENG. (AUG. 15)

Fine (70s)	31½d	¾ bld. (56s)	20 d
Fine (64s)	28 d	½ bld. (50s)	17 d
¾ bld. (60s)	26 d	Cross-bred (46s)	15 d
¾ bld. low (58s)	22½d		

NOILS—BOSTON

Fine	$0.57–$0.60	High ½ bld.	$0.44–$0.47
Half-bld.	.53– .55	Low noils	.40– .42
Aver. ¾ bld.	.45– .48	Medium colored	.40– .42
Fine colored	.46– .48		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.80 –$0.83
Lap, fine colored	.58 – .60
Hard ends, fine white	.60 – .63
Hard ends, ¼ blood white	.40 – .43
Hard ends, fine colored	.28 – .30
Hard ends, medium colored	.23 – .25
Card, fine White	.30 – .33
Burr, fine Carbonizing	.38 – .40

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.14 – .14½
Serges, Blue	.07½– .08
Serges, Black	.07 – .08
Serges, Red	.11 – .11½
Knit, White	.29 – .30
Knit, Red	.15 – .16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	.07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. grand XX in skeins	$4.40
Japan organzine, 2 thd. sp. crack in skeins	4.25
Japan crepe, 3 thd. grand XX in bobbins	4.60
Japan crepe, 3 thd. sp. crack on bobbins	4.30
Japan crepe, 4 thd. crack on bobbins	4.05
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	2.70
Tussah tram, 2 end on cops	2.00
Hosiery tram, 3 thd. Japan XXX	4.95
Hosiery tram, 4 thd. Japan, selec. gd. XX	4.45
Hosiery tram, sp. crack XX	3.70
Hosiery tram, crack XX	3.60
Hosiery tram, XX	3.35

SPUN SILK YARNS—(Terms: net 30)

40/2	$3.65	60/2	$4.00
50/2	3.85	62/1	2.80

Raw Silk

(60 day basis)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%	$3.75	$3.10	$2.95
Special Grand, 85%	3.55	3.00	2.85
Grand XX, 83%	3.25	2.90	2.75
Special Crack, 81%	3.05	2.80	2.70
Crack XX, 78%	2.90	2.75	2.65
Extra Extra, 73%	2.85	2.70	2.60
Best Extra, 68%	2.75	....	....

Canton filature, new style, 141/6	$2.05
Canton filature, new style, 20/22	2.00
Tussah filature, 8 cocoon	1.70

NATIONAL RAW SILK EXCHANGE

	Close Aug. 13	For the Week High	For the Week Low	Close Aug. 19	Net Chge.
August	2.83	2.90	2.70	2.86	+.03
September	2.74	2.77	2.70	2.77	+.03
October	2.73	2.77	2.70	2.74	+.01
November	2.73	2.77	2.70	2.74	+.01
December	2.73	2.76	2.70	2.74	+.01
January	2.72	2.76	2.71	2.72	....
February	2.73	2.76	2.71	2.74	+.01
March	2.73	2.77	2.72	2.73	....

Aug. 13 to Aug. 19—Total contracts, 95. Total number of bales, 950. Total approximate value, $332,500.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament		First	Second
50	14		$2.15	$1.95
75	18		1.60	1.50
75	30		1.70	1.60
100	18		1.25	1.15
100	40		1.30	1.20
125	36–50		1.20	1.10
150	24–30		.95	.90
150	36–40		1.00	.95
150	60		1.15	1.10
150	75–90		1.20	1.15
170	24–27		.95	.90
170	60		1.15	1.10
200	30		.90	.85
200	35–40		.90	.85
200	75–80		1.10	1.05
300	44–60		.78	.75
450	54–60		.78	.75
600	72–96		.78	.75
900	100–144		.78	.75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	1.60	1.50	150	.95	.90
100	1.25	1.15	175	.95	.90
125	$1.20	$1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	25	$3.10	40	30	$2.40
25	25	2.85	52	30	2.20
30	25	2.60			

(Due to diversified offerings prices for higher denier are not listed here.)

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.75	120	$1.90
55	2.55	150	1.60–1.85
75	2.25–2.70	200	1.55
100	2.00–2.45	300	1.50

Rayon Waste

Prices Nominal

Open bleached waste	–$0.16
Open unbleached waste	– .15
Bleached thread waste (mfs.)	– .11
Bleached thread waste (misc.)	– .10
Colored thread waste	.06– .08
Colored clips	– .06

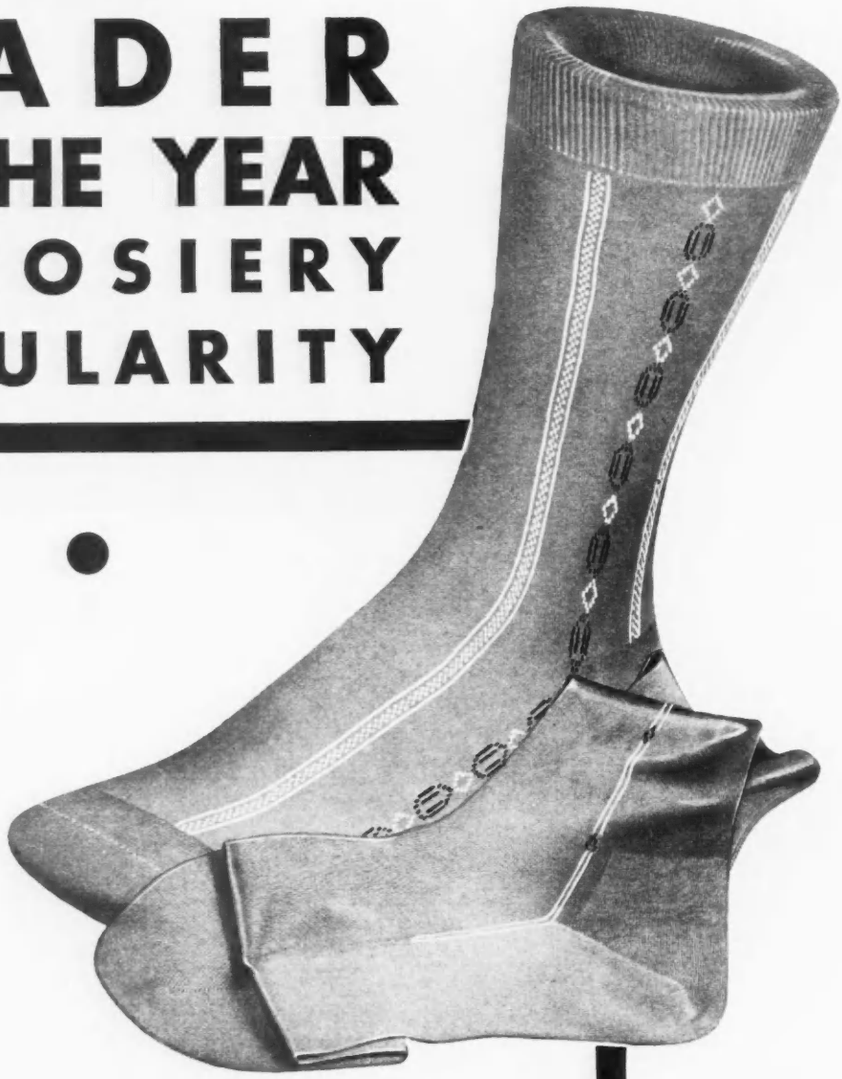
CONVERTED RAYON WASTE

Bleached tops	–$0.47½
Unbleached tops	– .42½
Bleached noils	– .15
Bleached garnets	– .13
Unbleached garnets	– .13
Colored garnets	– .10

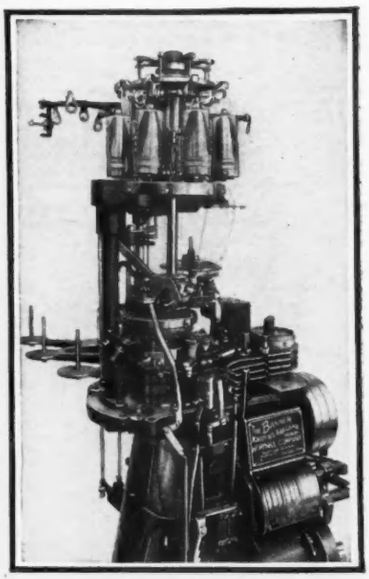
Silk Waste

Kibizzo Kikai Grand XX	$0.85
Kibizzo Kikai Triple Extra	.92
Frison Grand Double	.90
Pierced Cocoons	1.12

THE LEADER OF THE YEAR IN HOSIERY POPULARITY



BUYERS everywhere assert, "Wrap Stripe is essential to an up-to-date '31 line." Made on the Banner Full Automatic Wrap Stripe Machine — eight color feeds knitting raised effect of hand embroidery—eight steps for diversified patterning—two color attachment for color change in vertical stripes or designs—high splice and double sole for sales to thrifty buyers—regular yarn changes and binder—can be equipped with horizontal striper. Naturally, the product of such a versatile machine is the sales sensation of the year.



HEMPHILL COMPANY
Pawtucket, R. I.
93 WORTH STREET • NEW YORK

Philadelphia	High Point	Chattanooga
215 So. Broad St.	Commercial Bank Bldg.	James Bldg.

Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	50
Anderson Cotton Mills	69	73
Arcade Cotton Mills	..	60
Arcadia Mills	..	225
Arcadia Mills, pfd	96	100
Arkwright Mills	..	50
Augusta Factory, Ga	..	20
Avondale Mills, Ala	750	1000
Beaumont Mfg. Co	250	300
Beaumont Mfg. Co. 7% pfd	100	102
Belton Mills	..	25
Belton Mills, pfd	..	75
Bibb Mfg. Co	99	102
Bibb Mfg. Co. 6% pfd	99	102
Brandon Corp., A	..	45
Brandon Corp., B	..	7
Brandon Corp., pfd	..	84
Calhoun Mills	88	95
Chadwick-Hoskins Co. (par, $25)	9	12
Chesnee Mills	..	60
Chiquola Mfg. Co	250	260
Chiquola Mfg. Co., pfd	88	92
Clifton Mfg. Co	97	99
Clinton Cotton Mills	225	250
Columbus Mfg. Co., Ga	80	90
Cowpens Mills	..	30
D. E. Converse Co	90	95
Dallas Mfg. Co., Ala	..	65
Darlington Mfg. Co	40	50
Drayton Mills	110	..
Dunean Mills	120	125
Dunean Mills, pfd	95	100
Eagle & Phenix Mills, Ga	..	65
Easley Cotton Mills, pfd	..	47
Enterprise Mfg. Co., Ga	..	100
Fairforest Finishing Co., serial notes	98	100
Florence Mills	45	50
Florence Mills, pfd	97	100
Gaffney Mfg. Co	..	25
Gainesville Cotton Mills, Ga	140	150
Glenwood Mills	85	95
Gluck Mills	65	75
Gossett Mills	..	60
Graniteville Mfg. Co	..	100
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	45	48
Hamrick Mills	..	90
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd	83	85
Industrial Cotton Mills Co., pfd	..	30
Inman Mills	115	125
Inman Mills, pfd	100	..
Judson Mills, A, pfd	97	99
Judson Mills, B, pfd	95	98
King, John P. Mfg. Co., Ga	80	90
Lancaster Cotton Mills	250	270
Laurens Cotton Mills	..	120
Limestone Cotton Mills	..	100
Lydia Cotton Mills, serial notes	99	101
Marion Mfg. Co., N. C.	..	113
Marlboro Mills	..	15
Mills Mill, pfd	95	99
Mollohon Mfg. Co., pfd	97	100
Monarch Mills	105	115
Musgrove Cotton Mills	30	35
Newberry Cotton Mills	100	105
Ninety-Six Mills	400	..
Norris Cotton Mills	..	40
Orr Cotton Mills	..	60
Orr Cotton Mills, pfd	..	83
Pacolet Mfg. Co	..	130
Pacolet Mfg. Co., pfd	95	100
Panola Cotton Mills, Class A, pfd. (par, $60)	55	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co	95	100
Piedmont Print Works (no par)	15	20
Piedmont Print Works, pfd	60	70
Poe, F. W. Mfg. Co	24	29
Riverside & Dan River Mills	10	11½
Riverside & Dan River Mills, 6% pfd	73	78
Saxon Mills	..	65
Sibley Mfg. Co., Ga	50	60
Southern Bleachery	16	20
Southern Bleachery, Pfd	80	85
Southern Bleachery, serial notes	95	100
Southern Franklin Process	19	22
Southern Franklin Process, pfd	98	101
Southern Worsted Corp., pfd	88	92
Spartan Mills	..	140
Spencer Corp., serial notes	98	100
Union-Buffalo Mills	..	45
Union-Buffalo Mills, 1st pfd	83	87
Union-Buffalo Mills, 2nd pfd	43	46
Victor-Monaghan Co	60	65
Victor-Monaghan Co., pfd	112	117
Wallace Mfg. Co	..	105
Ware Shoals Mfg. Co	125	140
Whitney Mfg. Co	..	40
Woodside Cotton Mills Co	..	40
Woodside Cotton Mills Co., pfd	..	42
Yarns Corp. of America, gold bonds	99	101

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Aug. 20:

	High	Low	Last Sale	Net Change
American Woolen	9⅞	9⅞	9⅞	.....
American Woolen, pfd.	27⅜	25⅛	27⅛	+ 2⅛
*Assoc. Rayon, pfd	48	48	48	+ 1
Belding-Hemingway	5	3⅛	3⅛	— 1⅛
Cannon Mills	22⅛	21⅛	21⅛	— 1⅛
Collins & Aikman	21⅛	19⅜	21⅛	+ 1⅛
Consolidated Textile	1	⅜	⅜	.....
*Fabrics Finishing	2⅜	2⅜	2⅜	.....
Gotham Hosiery	10⅛	9	10⅛	+ 1⅛
Industrial Rayon	85⅛	82	85	+ 3
Kayser, Julius	24	23⅛	23⅛	+ ⅛
Mallinson	8	7⅛	7⅛	+ ⅛
*May Hosiery, pfd	23⅛	23⅛	23⅛	.....
Mohawk Carpet	17⅛	16⅛	16⅛	— ⅛
Munsingwear	39	36	39	+ 3
*Pepperell	82	81⅛	81⅛	— 3⅛
Real Silk Hosiery	39⅛	38⅛	39¼	+ ¼
*Tubize Chat	7⅛	7	7	.....
United Piece Dye Wks.	25⅛	22⅛	25¼	— ⅛

*Listed on Curb.

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	310	330
American Linen Co	..	..
Barnard Mfg. Co	..	10
Berkshire (com.)	8	11
Berkshire (pfd.)	..	60
Bourne Mills	5	10
Border City Mfg. Co	..	5
Charlton Mills	..	55
Cornell Mills	..	10
Davol Mills	..	5
Davis Mills	5	9
Flint Mills	18	..
King Philip Mills	5	..
Laurel Lake Mills (com.)	..	8
Lincoln Mfg. Co	..	10
Luther Mfg. Co	82½	..
Merchants Mfg. Co	27	..
Narragansett Mills	..	10
Parker Mills, com	..	..
Pilgrim Mills	..	60
Richard Borden Mfg. Co	2	..
Sagamore Mfg. Co	..	60
Shove Mills	..	6
Stafford Mills	..	1
Stevens Mfg. Co	27	32
Union Cotton Mfg. Co	24	..
Wampanoag Mills	..	..
Weetamoe Mills	..	1

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Ask
Acme Spinning Co	60	75
American Yarn and Processing Co	..	71
Chadwick-Hoskins Co. (Par. $25)	7	11
Chadwick-Hoskins Co., 8%, Pfd	95	99
China Grove Cotton Mills	94	100
Climax Spinning Co	57	66
Clover Mills	..	25
Converse D. E. Co	88	95
Crescent Spinning Co	53	62
Dixon Mills	90	100
Durham Hosiery, 6%, Pfd	30	35
Eagle Yarn Mills	56	65
Efird Mfg. Co	70	81
Erwin Cotton Mills	..	120
Erwin Cotton Mills Co., 6%, Pfd	90	97
Flint Mfg. Co	..	81
Flint Mfg. Co., 7%, Pfd	92	98
Globe Yarn Mills (N.C.)	..	20
Gray Mfg. Co	..	81
Hanes, P. H. Knitting Co	8	10½
Hanes, P. H. Knitting Co., 7%, Pfd.	..	99
Henrietta Mills, 7%, Pfd	42	55
Imperial Yarn Mills	..	60
Linford Mills	60	71
Locke Cotton Mills Co	40	55
Majestic Mfg. Co	100	135
Mansfield Mills	..	65
Mooresville Cotton Mills	4	7
Mooresville Cotton Mills, 7%, Prior Pfd	..	81
Myers Mills	..	71
Myrtle Mills	..	51
National Yarn Mill	50	60
Perfection Spinning Co	55	66
Ranlo Mfg. Co	..	115
Ranlo Mfg. Co., 7%, Pfd	..	98
Roanoke Mills	60	..
Roanoke Mills, 1st Pfd., 7⅓%	86	95
Roanoke Mills, 2nd Pfd., 8%	86	95
Rosemary Mfg. Co., Pfd., 7⅓%	95	..
Rowan Cotton Mills Co	67	80
Seminole Cotton Mills Co	..	75
Sterling Spinning Co	60	75
Stowe Spinning Co	54	66
Victory Yarn Mills Co	35	50
Ware Shoals Mfg. Co	115	130
Ware Shoals Mfg. Co., 7%, Pfd	92	98
Winget Yarn Mills Co	38	50
Wiscassett Mills Co	155	180

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd	68	57	64
Amoskeag	11½	..	..
Arlington	23½	23	25
Associated Textile	36½	34	37
Bates	63	68	75
Berkshire Associates, com	12	9½	..
Berkshire Associates, pfd	59	58	..
Bigelow-Sanford, com	54	..	..
Boott Mills	120½	105	115
Edwards	80½	70	..
Esmond, pfd	102	100	102
Farr Alpaca	69½	67	70
Hamilton Woolen	40	37	40
Hill	18	14	18
Indian Orchard	20½	20	25
Ludlow	138	136	140
Merrimack, com	50½	45	53
Nashua, com	32½	25	27
Nashua, pfd	68	66	69
Naumkeag	87	85	87
Newmarket	25½	17	22
Otis	49½	41	45
Pacific	21½	..	..
Pepperell	85½	81	84
Plymouth Cordage	82	70	72
York	81	6	9

New Bedford Mill Stocks

(Sanford & Kelley, New Bedford)

	Bid	Asked
Acushnet Mill	14	15
Beacon Mfg., con	125	..
Beacon Mfg., pfd	85	87
Booth Mfg. Co., com	7	9
Booth Mfg. Co., pfd	30	..
Bristol Mfg. Co	27	29
City Mfg. Co	38	41
Dartmouth Mfg. Co., com	48	52
Dartmouth Mfg. Co., pfd	86	..
Gosnold Mill., com	14	16½
Gosnold Mill, pfd	40	..
Grinnell Mfg. Co	20	22½
Hathaway Mfg. Co	34	35
Holmes Mfg. Co., com	1	3
Holmes Mfg. Co., pfd	8	..
Kilburn Mill	36	38
Nashawena Mills	19	21
N.B. Cotton Mills, pfd	10	12½
Neild Mill	31	35
Nonquitt Mills	4½	5½
Pierce Mill	115	120
Potomska Mills	29	31
Quissett Mills, com	50	53
Soule Mill	50*	..
Taber Mill	9½	10½
Wamsutta Mills	13	14½
Whitman Mills	1	3
Gosnold Mill Notes	..	90
Whitman Mills 6% Notes	38	..

* Ex-dividend.

Textile Calendar

Chicago Yarn Men's Circle, Annual Golf Tournament, Nippersink Lodge, Genoa City, Wis., Aug. 28, 1930.

Paterson Silk Institute Discussion Meeting, Chamber of Commerce, Paterson, N. J., Sept. 18, 1930.

Worsted Yarn Spinners' Annual Outing, Manufacturers' Country Club, Oreland, Pa., Sept. 24, 1930.

National Safety Congress, Textile Section, Annual Meeting, William Penn Hotel, Pittsburgh, Pa., Sept. 30-Oct. 1, 1930.

National Association of Cotton Manufacturers, Annual Meeting, Poland Springs, Me., Oct. 10-11, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

United States Institute for Textile Research, First Annual Meeting, New York City, Nov. 6, 1930.

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N.A.C.M. Program Committee

The program committee for the annual meeting of the National Association of Cotton Manufacturers, to be held at Poland Springs, Me., Oct. 10-11, is as follows:

Philip Dana, treasurer, Dana Warp Mills, Westbrook, Me.; Nathaniel F. Ayer, treasurer, Nyanza Mills, Boston; F. E. Banfield, Jr., agent, Saco-Lowell Shops, Biddeford, Me.; Stephen H. Crowley, assistant general manager, Lewiston, Me., Bleachery and Dye Works; George H. Estes, assistant agent, Continental Mills, Lewiston, Me.; Vernon C. Faunce, general superintendent, Bates Mfg. Co., Lewiston, Me.; Henry C. Harden, agent, Dwight Mfg. Co., Somersworth, N. H.; John T. Kirk, general superintendent, Nashawena Mill, New Bedford; Leonard Kleeb, Jr., Pepperell Mfg. Co., Fall River; W. K. Sanborn, superintendent, American Net and Twine Co., West Kennebunk, Me.; George E. Spofford, treasurer, Hill Mfg. Co., Augusta, Me.; Dexter Stevens, Manville Jenckes Co., Pawtucket, R. I.; William C. Summersby, agent, Hill Mfg. Co., Lewiston, Me.; William E. Winchester, vice-president, Deering, Milliken & Co., Inc., New York City.

Favor Tensile Strength as Fabric Test Measure

Tensile strength is the most reliable and feasible measure for classifying textile fabric for wearability, it was decided recently by the Joint Trade Committee on Weighting of the Silk Association of America, at a special meeting held in New York.

Acceptance of this fact followed the recommendation of the technical subcommittee of the group, and was embodied in a resolution which passed as follows:

"Whereas the members of a subcommittee of this joint committee of associations, studying the causes of complaint, have agreed that the factor of tensile strength of textile fabrics is the best practical test for ascertaining the serviceability value in consumer wear, therefore be it

"Resolved—that this joint committee of trade associations adopt the recommendation of the technical subcommittee, which recommendation establishes tensile strength as the specific point of technical information in the classification of textile fabrics as to the consumer wearability value."

Edward L. Greene, managing director of the National Better Business Bureau and chairman of the joint committee, presided.

Rayon in Bonded Warehouse

The Bureau of Foreign and Domestic Commerce, Textile Division, reports stocks of rayon held in bonded warehouses on June 30, 1930, as follows:

Description	Pounds	Value
Rayon Waste	38,654	$12,150
Staple Fiber, Waste not advanced further than Sliver or Roving, and Yarns made from Waste	225,243	144,380
Yarns, Threads and Filaments	2,718,957	1,609,099

COMPARATIVE FIGURES FOR MAY 30, JUNE 30, 1930

Rayon Waste	40,854	$14,130
Staple Fiber, Waste not advanced further than Sliver or Roving, and Yarns made from Waste	227,686	145,581
Yarns, Threads and Filaments	2,955,820	1,792,876

Is Paternalism Necessarily Vicious?

(Continued from page 35)

then develop to the point where they will be capable of directing their own affairs that are now supervised by their employers.

There are mill villages in the South in which management is gradually relinquishing close paternalistic supervision. For years the employees in the five southern factories of The Kendall Co. have had democratic control of activities in the company's villages in which they live. At the Riverside and Dan River Cotton Mills, Danville, Va., home owning industrial democracy has been in existence for years. Other mills are turning over some of their own welfare activities to public agencies as soon as these develop.

Benefit to Workers

Not all of the recent efforts for the improvement of the working and social conditions of employees in industry have been successful. Failure has often been deserved. In some instances the workers objected to the degree of oversight exercised by management. In some cases the program was not selected wisely. And some welfare schemes failed because they were initiated to take the place of adequate wages, to destroy labor organizations, and to act as a substitute for proper working conditions. When unintelligently devised and administered, welfare work deserves to be condemned and ought to fail, for "true welfare begins with the provision of working conditions which are fundamentally just in the recogni-

TEXTILE WORLD Cotton and Wool Indexes

COTTON INDEX NUMBERS

Date	Cotton	Yarns	Gray Goods	Colored Goods	Aver. for Cloths	Group Average
July 31, 1914	100	100	100	100	100	100
1925						
January	192	197	195	173	184	187
April	196	194	193	180	187	188
July	197	183	185	176	181	182
October	174	189	193	178	186	186
1926						
January	167	175	177	162	170	171
April	153	163	161	155	158	159
July	149	149	151	141	146	147
October	106	141	147	144	146	143
1927						
January	107	134	140	140	140	138
April	118	136	143	142	143	140
July	143	149	156	145	151	150
October	168	176	184	169	176	176
1928						
January	151	163	166	166	166	165
April	164	160	160	165	162½	162
July	174	167	165	168	166½	167
October	157	161	162	164	163	162
1929						
January	162	166	158	169	163½	164
April	163½	164	157	173	165	165
July	149	160	149	166	158	158
October	147	160½	155	161	158	158
1930						
January	138	149	141	157	149	149
February	125	144	134	157	145	145
March	120	138	130	157	144	142
April	131	139	129	156	143	142
May	131	136	129	156	142	141
June	116	127	120	150	135	133
July	105	120	119	142	130	128

THE downward trend of prices of cotton and its manufactures continued unabated in July, the raw material declining 11 index points during the month, yarns 7 points, grey goods 1 point, and colored goods 8 points. The weakness in colored goods, which developed in June, continued in July. The raw cotton index of 105 was the lowest for any month since December 1926, when it touched 101, but at that time the margin between cotton and its manufactures was much more satisfactory, as following comparison shows:

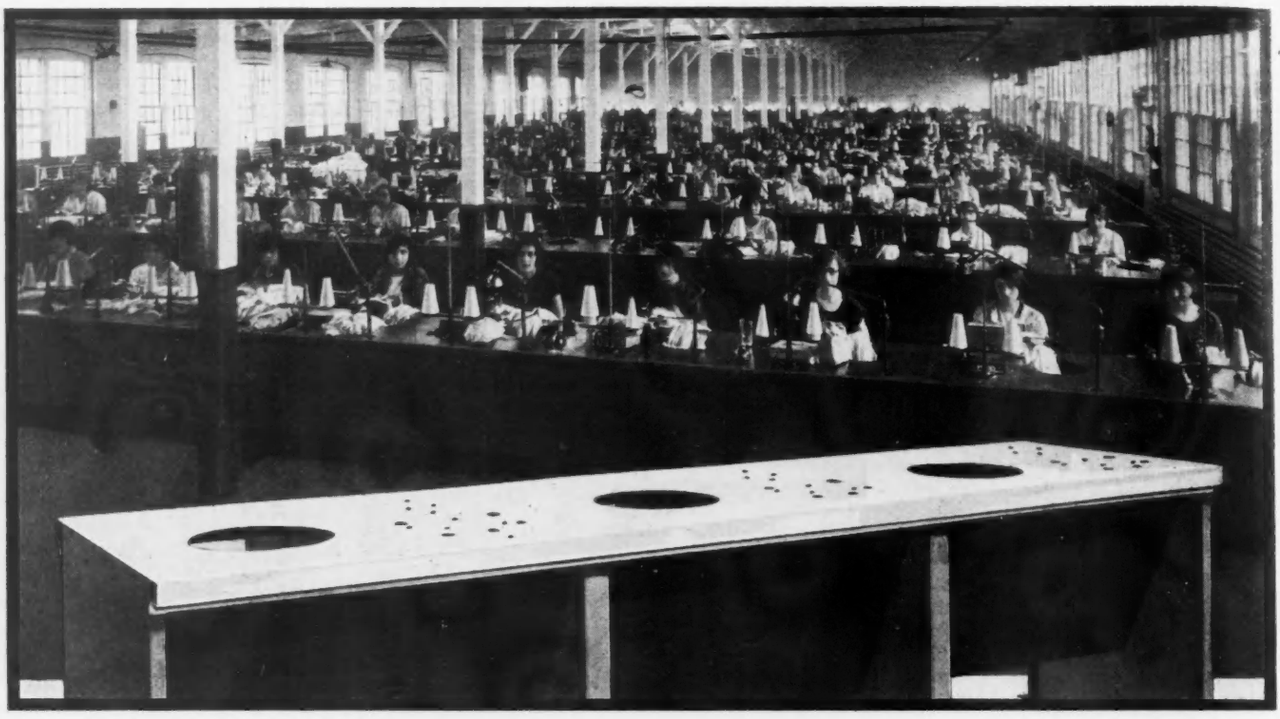
	Cotton	Yarn	Cloths
December, 1926	101	135	140
July, 1930	105	120	130

Wool and tops continued firm during July, and while yarns and cloths declined slightly, they may be expected to remain at or near current levels provided the raw material situation at home and abroad remains firm, and the expected demand develops in the goods market.

Inquiries regarding interpretation and use of TEXTILE WORLD index numbers may be addressed to TEXTILE WORLD, Statistical Dept., Statler Bldg., Boston.

WOOL INDEX NUMBERS

Date	Wool	Tops	Yarns	Cloth	Group Aver.
July 31, 1914	100	100	100	100	100
1925					
January	215	213	211	229	221
April	219	234	230	241	235
July	216	217	216	239	227
October	216	212	212	227	220
1926					
January	215	213	211	229	221
April	181	193	198	224	208
July	173	184	189	215	199
October	178	186	193	209	198
1927					
January	178	187	190	209	198
April	177	182	184	211	196
July	180	183	183	211	196
October	185	185	189	211	199
1928					
January	194	193	186	212	201
April	199	206	198	215	208
July	204	206	203	214	209
October	197	197	203	212	206
1929					
January	199	198	201	211½	206
April	187	189	198	211	202
July	169	170	188	211	194
October	164½	169	188	211	194
1930					
January	148	161	177	211	188
February	138	150	173	209	183
March	132	144	169	202	177
April	127	139	164	202	175
May	124	136	159	202	173
June	124	135	160	202	173
July	125	135	158	200	171



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tion of the human rights of the workers."

While some schemes ought to be abandoned, many of them are distinctly beneficial to wage earners. And progress in this field of human relations in industry will be facilitated when, instead of summarily condemning "all sorts of variations and degrees of paternalism in the gamut of personnel relations," we develop case studies and criticize where criticism is needed, and praise where praise is deserved. This principle offers hope of understanding and clarifying the whole issue, for such an approach to the problem would disclose the fact that paternalistic welfare activities may either be good or bad, depending upon the motives of the management and the conditions under which the system is applied in any given case.

M. Salter & Sons Office Removed To Plant at Saugus, Mass.

The main office of M. Salter & Sons, woolen rag graders, has been removed to the plant at Saugus, Mass. The firm will retain its premises at Chelsea, Mass., but all correspondence should be addressed to Saugus.

The concern will continue to buy mixed soft woolens and mixed rough cloth, and sort and prepare this stock to be ready for the pickers.

Glanzstoff Develops 50 Denier Rayon Crepe

A new all-rayon crepe, employing 50 denier viscose process yarn in both warp and filling, has just been developed by the fabric development department of American Glanzstoff Corp.

The material has the smooth surface and crisp hand so much desired in present day crepe fabrics. The construction of the material calls for 135 ends in the warp and 94 in the filling.

Pequot Wide Sheetings, Sheets and Pillow Cases Reduced

Parker, Wilder & Co., on Aug. 16 announced revision of prices on Pequot wide sheetings to basis of 46c. for 9/4 bleached and 58c. for 108 in. brown; on sheets and pillow cases to basis of $16.18 per dozen for size 81x99, $13.60 for size 72x90, and $17.50 for size 90x99 bleached sheets, and $3.87 for size 45x36 bleached pillow cases. Prices established are lowest since 1917.

Attracts Buyers by Miniature Mill

ATLANTA, GA.—An ingenious model of a cotton mill, equipped with miniature looms, fly frames and other textile machinery, is being exhibited in a display window of Rich's department store here this week.

The model was sent to the store by the manufacturers of the "Fruit-of-the-Loom" fabrics. Every feature of this miniature mill is worked out in careful detail.

Strike Meets Wage Reduction at Bessemer City

More than 500 operatives refused to return to work at two plants of American Cotton Mills, Inc., Bessemer City, N. C., Monday morning, Aug. 18, rather than accept a wage reduction which was said to range from 5 to 25%. Frank Goldberg, president of the mills, declared that the wage slash, which amounted to an average reduction of 10%, was made necessary by highly competitive market conditions.

Although the management offered to reinstate for a period of two weeks the wage schedule in effect prior to the strike, the operatives could not arrive at an agreement among themselves and efforts to settle the controversy on Tuesday were futile. The situation was further complicated when a small group of weavers demanded not only the old wage schedule but also a raise in pay.

The strike was precipitated from within the ranks of the workers and there was no indication that union influence had any part in the affair. It was reported that three alleged communists were ordered out of town, and E. L. Gillespie, spokesman for the strikers, declared that they would have nothing to do with any communists.

Both plants, which had been running full time until recently, were closed entirely Tuesday afternoon. There was no violence, although picketers heckled and intimidated several workers who were willing to return to their jobs, and the resulting conditions made attempt to operate the plants inadvisable.

American Cotton Mills, Inc., are manufacturers of tire fabrics and ducks and the two plants are equipped with a total of 18,000 ring spindles and about 300 looms. The Goldbergs also own the Clara, Dunn, Armstrong and Piedmont mills, located in Gastonia, which were purchased from the Armstrong-Winget interests several months ago. These plants were not affected by the Bessemer City strike.

Don't Be Afraid of the Microscope!

(Continued from page 31)

In a later article several methods for obtaining stereoscopic photomicrographs with the ordinary camera will be described. Where a great deal of this work is to be done, the camera shown in Fig. 7 will prove of considerable value. Two plates are simultaneously exposed, one from each side of a sterescopic binocular microscope. When the resulting prints are suitably mounted and viewed through a stereoscope, or a simple substitute, the picture appears in three dimensions or deep relief. The various forms of vertical cameras, mounted on a simple support, are of general utility and moderate cost. (Figs. 3, 4, 5, and 6.) These are available either with box bodies or with adjustable bellows. The most convenient form, and the one particularly recommended for textile use, is that having bellows, time shutter, and adjustable arm. The latter may be left vertical, may be swung to a horizontal position (making available a longer bellows extension and higher magnification), or may be set at any desired angle between these two extremes. The latter adjustment is necessary if the instrument is to be used for stereoscopic photography with the binocular stereoscopic microscope.

Research stands of greater elaboration will be clearly understood from the illustrations (Figs. 9, 10, 11, and 12). As has been pointed out, their expense is much greater; they occupy more space; and, except for extremely critical work at very high powers and where a large amount of photomicrography is to be done, they are not really needed for textile work in general. In a well-equipped research laboratory, however, where peculiar and difficult problems of pure and applied research are to be considered, such equipment should be available.

No attempt has been made to discuss the technique of photomicrography. It has been the purpose of the author, rather, to make the reader somewhat familiar with the type of apparatus which is available and to furnish such brief items of information relative to each as will enable him to make a more intelligent selection of equipment.

Previous articles have appeared as follows: Article I, "Possibilities of Microscope in Textile Industry," April 27, 1929; Article II, "Types of Microscope Applicable to Textile Industry," May 18; Article III, "Handling the Microscope with Efficiency and Understanding," June 22 and June 29; Article IV, "Methods of Illumination," Aug. 17; Article V, "Useful Accessory Equipment," Sept. 21; Article VI, "Textile Micrometry," Oct. 26; Article VII, "Mounting Textile Specimens," Dec. 14, Dec. 21, 1929; Article VIII, "Preparing Cross-Sections of Textiles," Jan. 18 and Feb. 15, 1930; Article IX, "Recording Data," May 24 and May 31; Article X, "Photomicrographic Apparatus," Aug. 16.

Tubize Chatillon Divides Chardonize and Sanconize Yarns Into Three Grades

In view of the recent price reductions on synthetic fibers and the subsequent narrower price differential between 1st and 2nd qualities, the Tubize Chatillon Corp. has adopted a policy of drawing stricter lines as to quality classification, H. N. Cappel, sales manager announced Wednesday. Mr. Cappel added:

"We have re-aligned our classification standards resulting in the usual carefully selected 1st grade, a much higher quality 2nd grade, and a 3rd grade. The 3rd grade, under the new classification, should not be confused with Inferior which is the 4th grading."

Asbestos Mail Sacks

The Postoffice Department will shortly inaugurate the use of a fireproof asbestos mail bag in the air mail service which, it is believed, will eliminate loss through fire of mail matter of every description conveyed by this modern method of transportation.

Operating Executives of Georgia To Meet Sept. 19

The fall meeting of the Textile Operating Executives of Georgia, composed of superintendents and department heads of mills, will be held on Friday, Sept. 19, at the Georgia School of Technology in Atlanta.

Slashing and weaving and mechanical subjects will be discussed. The morning session will be devoted to slashing and weaving, while the afternoon session will be given over to problems of interest to the master mechanic. This latter discussion is a new feature with this organization, and all indications are that it will be made a permanent and valuable phase of the organization.

Frank E. Heymer of the Piedmont Cotton Mills, Egan, Ga., is general chairman of the organization; and Frank K. Petrea, Swift Mfg. Co., Columbus, Ga., is vice-general chairman.

Mr. Petrea will lead the discussion on weaving, while the slashing session will be in charge of George S. Elliott of the Pacolet Mfg. Co., New Holland, Ga. P. L. Lindsey, chief master mechanic of the Thomaston Cotton Mills group, will conduct the afternoon discussion on mechanical subjects. A questionnaire has been drawn up to act as a guide to the discussions.

Plan to Coordinate Colors In Silk Industry

Coordination of colors in the silk and allied industries and the distribution of color information of interest to silk manufacturers will be undertaken by the color coordination committee of the Silk Association of America, Inc., recently appointed by Thomas B. Hill, president of the association. This committee will cooperate with existing color committees of allied industries and has appointed D. I. Stern, of D. I. and C. H. Stern, Inc. as its special representative to work with the Textile Color Card Association. Walter P. Taylor of C. K. Eagle & Co., Inc., is chairman of the committee.

Rushing Work on Alabama Tech's Textile Department

AUBURN, ALA.—The new textile building for the recently organized textile department of the Alabama Polytechnic Institute is being rushed through to completion. It is now expected that the building will be completed in early October. The textile building is 300x 60 ft., of brick construction, with two stories and a basement. The cornerstone was laid last month, as described in these columns at the time.

The school's new department is to be equipped with complete textile machinery from pickers to looms and orders for this machinery will be placed shortly before the building is completed.

The 1930-1931 session opens Sept. 8 and over 60 students are expected for this term. Last year there were 45 in this department with no equipment nor building.

Prof. E. W. Camp, formerly dean of the textile department at the Georgia School of Technology, is head of the textile department here and associated with him are two other textile men, W. P. Tarrant, formerly with the West Point Mfg. Co., and D. Ordway who was associated with Sonneborn Co. for several years as southern representative.

"Towel Style Show" is Cannon Mills Novelty

Most of the leading department stores in the New York district were represented at the "towel style show," a novelty in style shows, which was held by Cannon Mills, at 66 Worth St., New York, on Wednesday. The aim of the show was explained by Fred Williams in a brief talk. Mr. Williams said that a few years ago Cannon Mills had been making only the standard plain white towels, but that the injection of the style element into this industry was effective in stimulating keen consumer interest which had a direct and favorable effect on sales.

He stressed the thought that Cannon branded towels sell better than unbranded lines in the stores, and added that they had conducted some experiments in different stores throughout the country to find out whether Cannon towels sold better than unbranded, and found the ratio in some stores to be as high as 8 to 1, in favor of Cannon towels.

Sixty Study Styles In New Course

Sixty stylists from twenty-two states have enrolled in the special stylist training course conducted by Mary Brooks Picken, well-known authority on fashion and dressmaking, which opened Monday at the Home Making Center in Grand Central Palace, New York.

The first week of the course was devoted to the technical end of styling in its relation to merchandizing. Lectures by nationally known textile style authorities will comprise the second week of the course, beginning next Monday, and closing Thursday afternoon. The speakers Monday will include: Miss Lillian Callahan, stylist, Mallinson Silk Co., Mrs. Kathleen Livingston, stylist, Walther Mfg. Co., Miss Marian Stephenson, educational director, Cheney Brothers, Mrs. Louise Huston, educational director, American Bemberg Corp., Miss Susan Bates, trade counsellor, The Cotton-Textile Institute and Miss Thelma Roberts, The Cotton-Textile Institute.

Black-and-White Folder Stresses Bemberg Hosiery

The contrasting effects of black and white are artistically utilized in a novel folder recently sent by the American Bemberg Corp., of New York and Elizabethton, Tenn., to hosiery manufacturers for distribution to retailers.

Prepared for Third Annual Cotton Manikin Show

The third annual trade conference and manikin parade will be held under the auspices of The Cotton-Textile Intitute in cooperation with The National Association of Cotton Dress Manufacturers at 40 Worth Street, New York City, at 2.30 p.m., Tuesday, Sept. 16.

More than three times the number of exhibitors showing last year will participate in the coming conference which is expected to draw a crowd greatly exceeding the 1,000 visitors accommodated in 1929.

Dresses to be displayed are limited to a retail price range from $1.95 to $6.95 with particular emphasis given to those retailing for less than $5. Extending the price limit to $6.95 is expected to be helpful in the general "trading-up" movement in this section of the cotton garment trade.

The companies exhibiting in the coming conference are: Bear Mill Mfg. Co., M. C. D. Borden & Sons, Amory Brown & Co., Fred Butterfield & Co., Consolidated Selling Co., Fruit of the Loom Mills, Galey & Lord, Henry Glass & Co., M. Lowenstein & Sons, Inc., Mahler Textiles Inc., Pacific Mills, Pepperell Mfg. Co., Phoenix Mfg. Co., Max Schwarz Textile Corpn, A. H. Vandam Co., Wellington, Sears & Co.

Georgia Tech Opens Its Textile School Sept. 22

ATLANTA, GA.—The textile department of the Georgia School of Technology will begin its thirty-second year in session on Sept. 22. According to Hibbard S. Busby, director of the school, over 175 students are expected for the fall term.

The school is equipped, it is said, for performing every process from the cotton bale to the finished product, and has class rooms, laboratories, etc., for giving practical instruction in the science and application of this knowledge along individual lines. The textile building is of typical mill instruction, 75x150 ft., with three floors.

The instructors for the coming year include: Mr. Busby, Associate Professor Jones, Assistant Professor Ralph Hill, Instructors Philpot, Carmichal, Bramdon and Cohen.

Wool Clip Heavier in Montana

HELENA, MONTANA—Montana's wool clip for 1930, estimated at 32,364,000 lb., is the largest since 1911, when 34,875,000 lb. were clipped. It exceeds the 1929 clip by well over 3,000,000 lb., according to the annual wool survey of the state-federal crop reporting service.

Not since 1914 has the state's wool production gone over 30,000,000 lb., and during the intervening period, it fell as low as 16,000,000 lb. in 1920. Montana in wool production in 1930, was exceeded only by Texas, with a clip of 40,654,000 lb.

Obituary

Frederick L. Lamson

Frederick L. Lamson, assistant to Henry P. Kendall, president of the Kendall Co., died suddenly last week in the Union League Club, Chicago. He was striken with a heart attack and succumbed soon after. Mr. Lamson was born at Jasper, N. Y., Dec .9, 1870. He was one of the organizers of the Norwalk Tire & Rubber Co. When the Kendall Co. acquired the Bauer & Black Co. of Chicago, Mr. Lamson was selected by Mr. Kendall to reorganize the company, and after completing the work of reorganization he became a member of the administrative staff and assistant to the president. He leaves a widow, two daughters, Mrs. J. A. Erneman, of Bridgeport, Conn., and Coral Gables, Fla., and Mrs. Chester Woodworth of Springfield, and a brother, George R. Lamson of Akron, Ohio.

Todd B. Meisenheimer

Todd Bowman Meisenheimer, southern representative of the Celanese Corp. of America, died at a hospital in Charlotte, N. C., Aug. 17, of heart disease, following an operation which he underwent last May.

Mr. Meisenheimer, a son of the late Dr. C. A. Meisenheimer and Mrs. Nannie J. Meisenheimer, was born in Charlotte, N. C., March 7, 1895. He was graduated from the North Carolina State College textile school in 1917 and later, as a naval cadet, studied at the Stevens School of Technology, Hoboken, N. J. At various times he was connected with the DuPont Co., the National Aniline & Chemical Co., and the Sandoz Chemical Works of Switzerland. Five years ago he was made southern manager of the Celanese Corp.

Frank C. Morse

Frank C. Morse, agent of the American Woolen Co. mill at Lebanon, N. H., was found dead Aug. 14. Death was reported caused by shooting. He was 64 years of age. Mr. Morse was a native of Hartford, Vt., and had been agent of the American Woolen Company's Lebanon mills for the past 20 years. He is survived by his widow, a son, Harold, and a daughter, Barbara.

M. B. Rice

M. B. Rice, president of the firm of John Rice & Brothers, Inc., woolen manufacturer, Woolich, Pa., was killed in an automobile accident near Lock Haven, Pa., Aug. 9, when the car he was driving struck the abutment to a bridge.

John H. Emory

John H. Emory, age 44, well-known hosiery mill man of Durham, died Aug. 14 from heart disease. He was 44 years old. At the time of his death Mr. Emory was associated in the operation of the Sure-Wear Hosiery Mill.

Frank J. Oakes

Frank J. Oakes, 54-year-old general superintendent of the Dodge works of Link-Belt Co., Indianapolis, Ind., died suddenly at his home recently of apoplexy. Mr. Oakes was active in local business and lodge activities and was well known in the mechanical engineering field. He was a recognized authority on mechanical engineering and during the world war was selected by the Government as a designer and adviser on the manufacture of munitions.

C. C. Twitty

C. C. Twitty, founder, president and treasurer of the Hartsville (S. C.) Cotton Mills and vice-president of the Darlington (S. C.) Mfg. Co., died recently in Florence, S. C., after an illness of two years. He had been associated with the cotton manufacturing industry more than 30 years.

He is survived by his widow, a married daughter and two brothers, W. F. and M. T. Twitty. W. F. Twitty is treasurer of the Darlington Mfg. Co., while M. T. Twitty is secretary of the Hartsville Cotton Mills.

John J. Collins

John J. Collins, Boston, Mass., wool broker, died suddenly while at his desk at his office, 184 Summer Street. Mr. Collins was 77 years old and is survived by no immediate relatives. He had been engaged in the wool business for many years in New York and Philadelphia, and went to Boston about 15 years ago. He specialized in carpet wools.

William H. Talbert

William H. Talbert, superintendent of the finishing department of the Waterloo Mills, Inc., for the past 22 years, recently died suddenly at his summer home on Lake Cayuga. He was born in West Canaan, N. H., 45 years ago, and had been connected with the Waterloo Mills, Inc., and its predecessor, the Waterloo Textile Corporation since 1908.

James S. Deleu

James S. Deleu, an executive in the New York offices of the Holeproof Hosiery Co., Milwaukee, Wis., was killed in an automobile accident at Durham, N. C., Aug. 17. He is survived by his widow.

Useful Catalogs

Pumps. Goulds Pumps, Inc., Seneca Falls, N. Y. Centrifugal pump selection charts, giving complete data on this firm's multi-stage centrifugal pumps, with illustrations and specifications.

Hoists. Ambold Machine Tool Corp., New York City. Folder describing latest line of Demag electrical lifting devices, and lifting devices for all purposes.

Dry Cleaning. Gloves Sales Division-Butler Mfg. Co., Kansas City, Miss. Profit-saving advantages of Glover equipment described in folder.

Drives. Worthington Pump and Machinery Corp., Harrison, N. J. Booklet gives description and details of new Worthington multi-V-drive.

Chemicals. Carbic Color & Chemical Co., Inc., New York City. New pattern card illustrated indigosols printed on mixed fabrics of cotton and acetate rayon.

Valves. Crane Co., Chicago. Growth of Crane Co. reviewed in special 75th anniversary issue of the house organ, *The Valve World*.

Industrial Art. Pennsylvania Museum's School of Industrial Art, Philadelphia. Circular of the Philadelphia Textile School, 47th year, reviews year's activities of this organization.

Business News

Link-Belt Appoints European Correspondent

Humphrey J. Kiely, vice-president, Link-Belt Co., Chicago, in charge of the export division, announces the appointment of William Piez, brother of Charles Piez, chairman of the company, as European correspondent.

The move has been made to give closer contact to the Link-Belt agents and customers located in Europe, the British Isles, and North Africa, and is another step taken by Link-Belt to render a better world-wide service.

William Piez, who resigned his position as district manager of the Concrete Steel Co., Chicago, in September, 1928, has lived in Paris since that time.

Large Order for Boilers

Combustion Engineering Corp. announces the receipt of contract from the Brooklyn (N. Y.) Edison Co. for eight boilers and accessories, to be installed in the Hudson Avenue Generating Station. This contract amounts to over $2,000,000 and is believed to be the largest contract for boiler equipment ever placed in this country. In addition to the boilers, the contract includes complete water-cooled furnaces, boiler settings and steel work, and economizers, all of which equipment is to be designed, manufactured and installed by Combustion Engineering Corp.

Westinghouse Promotes T. R. Langan

C. E. Stephens, vice-president, Westinghouse Electric & Mfg. Co., has announced the appointment of T. R. Langan as assistant northeastern district manager of the Westinghouse organization. Mr. Langan has been with the Westinghouse Company for more than twenty years. Mr. Langan will make his headquarters at New York and will continue to function as manager of the transportation division of the northeastern district.

Hercules Man Studies European Cellulose Markets

P. B. Stull, general manager of the Virginia Cellulose Department, Hercules Powder Co., Wilmington, Del., has returned to the home office after visiting various European users of purified cotton linters and making a general survey of the cellulose market.

Reliance Electric Moves Its Boston Office

The Boston office of the Reliance Electric & Engineering Co., manufacturers of alternating and direct current motors, has been moved from 80 Federal Street to new quarters at 89 Broad Street.

R. H. Smith will continue as district manager of this territory.

To Represent Sylvania in Southwest Territory

The Sylvania Industrial Corp. has completed agency arrangements with the Pollock Paper & Box Co., Dallas, Tex. The latter company will represent Sylvania in the southwest territory in handling sales of the transparent cellulose, Sylphrap.